UNIVERSITY OF ALBERTA

# REFLECTIVE PRACTICE WITHIN A PHYSICAL EDUCATION TEACHER EDUCATION PROGRAM

by

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# ABSTRACT

# REFLECTIVE PRACTICE WITHIN A PHYSICAL EDUCATION TEACHER EDUCATION PROGRAM

Reflection in teacher education programs provides opportunities for discovery, and for the development of a professional identity through perspective taking, judgement and decision-making and in the critical examination of teaching theories of knowledge, and the practical concepts of teaching *for* learning in physical education. The purpose of the case study was to further understand reflective practice used in the preparation of physical education teachers. This research was inspired by a need to develop in beginning teachers a professional development model of lifelong learning: to be mindful, to reflect and to ask questions about teaching practice.

Research methods congruent with interpretive inquiry were used: by observing and engaging pre-service teachers and teacher educators in various reflective techniques, findings identify the application of reflection within physical education teacher education. Findings support inquiry-oriented teacher education and the expanse of descriptive and interpretive research approaches prevalent in educational institutions throughout North America.

**WM**

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I would like to specifically recognize that the students, professional teacher peers, administrators and parents motivated me to learn more about teaching so that in the future I might share with others practices that will inspire learning in, about and through physical education.

Thank you to the members of my committee: Drs. Norma Nocente and Graham Fishburne: for their support and understanding of the role teacher educators play in the preparation of professionals in physical education, and for pulling me through the final phase of my studies.

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welcome and validated in your program through the learning opportunities I was given in courses and research projects. You have made me revisit and resurface my identity. I learned some important academic skills about writing, reading and interpreting, dealing with the ups and downs of graduate research, coping with bouts of angst and frustration; and life lessons on treating all students, teachers, university faculty and staff with professionalism, a caring and supportive demeanor – while all the while modeling personal dignity and respect. This is something I will strive to carry forth in all the relationships I have and continue to develop in my personal and professional life.

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# PROLOGUE

I have developed my identity as a physical educator over time. I have meshed my past experiences in school, as an athlete, coach, official, spectator, teacher, teacher educator, and student. As a reflective practitioner, I now recognize some of the changes that I have gone through during my career as teacher. I also know that when I moved from one role to another it was difficult at times to assess how I changed who I was.

The student experience I had in school physical education was surely the primary influence. I had always enjoyed physical education and had a few excellent teachers whom I consider facilitators to my interest in this field as a career. When I was a undergraduate university student, my physical education program did not fully prepare me for teaching PE. The competencies and skills I gained to become a physical educator did not come from a university course or professor alone. I found it quite a challenge to balance my own background as student-athlete in sport with new realities of teaching to a group of young people – many who did not share my passion for active living (or active learning). The qualities that make me a *physical educator* come from experience, from interaction (communication and socialization), and from reflection. The latter is the exercise that shaped and toned my identity. It also became my most important avenue for professional development.

I see the preservice teacher in physical education as someone who had positive school or life experiences with physical education, sport or recreation. Traditionally, this has to do with physical attributes and experiences in physical activity beyond the gym class. As students, I feel those in teacher training bring a lot of energy and enthusiasm to this subject area. While drudging through assignments and going to classes, they are keen on getting into their field experience. Many give the impression they already know what to do, how to teach – because they've seen it. However, one of the key skills they haven't developed is that of reflective practice. I believe it is through a reflective, self-awareness process that one filters socialization and shapes a professional's identity. This provides the prospect to examine with greater depth; to ask 'what is going on?' and 'who am I?'

The most common question I have heard from students (and preservice teachers) is "Why are we doing this?" The answer should be: to gain a better understanding and appreciation of self, for the role of teacher and the context that is school. Pre-service teachers shift roles and environments in their professional development. University life is replaced with life in front of the class. What I'm interested in is how new teachers use different reflective practice strategies to shape their perspective on physical education, the teaching profession, and their identity. This may be the best indicator of how they will shape others.

# REFLECTIVE PRACTICE WITHIN A PHYSICAL EDUCATION TEACHER EDUCATION PROGRAM

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# REFLECTIVE PRACTICE WITHIN A
PHYSICAL EDUCATION TEACHER EDUCATION PROGRAM

## Chapter One

## Introduction: 'Learning to teach' in physical education

This chapter is divided into two sections. The first section will outline the study and provide an overview for the research. The focus of the study is presented by summarizing the purpose, the process, the theoretical significance and practical importance, and the implications of the outcomes of the project. The intent of the second section of this chapter is to provide a background for inquiry-based strategies used in teacher education and note some related 'Physical Education in Teacher Education' research that guided the theoretical and practical applications used for the study. It also provides some structure to revisit in the discussion and conclusion.

### Section I: Focus of Study

The purpose of this study is **to understand reflection in physical education teacher education (PETE)** in the following dimensions:

1) The background of participant pre-service teachers and teacher educators;
2) The reflective strategies used in the PETE program at one large Canadian university;
3) The perceptions of participants towards reflection and reflective strategies; and
4) The concept of the reflective practitioner in PETE as an orientation for teaching and as a professional development model.

The study will demonstrate a reflective approach to pedagogy research within physical education by analyzing critical discourses and reflective strategies used in teacher education during the initial phases of professional development. Through a research dialogue, instructors and pre-service teachers recently involved in the program shared perspectives on their current experience. By investigating the technologies (learning experiences and instructional strategies) used to promote reflection, and through the facilitation process of reflective discourse and inquiry, the research proposed may provide:

- a further understanding of the concept of 'reflective practice' from theory to praxis – by observation and assessment of experiences and strategies used in the pre-service development of physical education teachers at a large Canadian university;
- an 'investigation by experience' of teacher education models and the instruction;
- a synthesis of concerns, issues and discourses in PETE related to a reflective approach to teaching physical education;
- recommendations for PETE programming; a personal theory on how to best prepare pre-service and novice teachers in physical education.

Throughout the research paper, the evidence for reflection is referenced in relation to participants by using a variety of terms, such as: beliefs, perceptions, attitudes, attributes, dispositions, etc... I will use these words to describe the views or personal theories that were shared in discussions or noted during observations. I hope that by revisiting the thoughts and analyzing their intent I may get a better idea of their understanding of reflection using a variety of methods and strategies.

Findings may provide evidence that reflection is taking place and showcase various program methods and strategies used that support participants becoming reflective. Consequently, it may be possible to determine whether the participants who engaged in a reflective model of teacher preparation identify with this approach to learning to teach.

Within the context of teacher socialization, and personal experience, what may be discovered is how reflection is implemented and practiced in one context – the physical education stream of one teacher preparation programme at a large university in western Canada.

### Theoretical significance and practical importance

It is important to recognize the complex context of learning to teach when considering the impact of reflection in a teacher education program. A number of internal and external influences may affect program content, instructional focus, and the preparation of pre-service teachers. Graduates entering the teaching profession are generally prepared to begin their career in local school jurisdictions that also have a role to play in determining what skills and aptitudes they should possess. Teacher associations lobby to have their members achieve a set of minimum professional standards in order to become certificated. Finally, politics and priorities shift regularly in large institutions for a number of reasons. To examine in a logical sequence then a program orientation or philosophy directing i) the policies and ii) the structures to iii) the detailed experiences provided to the students, one should also include a look at the ecology of a teacher preparation program.

The challenge in examining program design in teacher preparation is that this is not just an analysis of documentation. Other sample research questions may bring to light an interest into how teacher education programs are structured:

- Who makes decisions on course content and delivery? On a program's orientation?
- Who is involved in program development and instructional design? How are program participants recruited?
- Are teacher education students and teacher educators encouraged to reflect? How and why?

- What guidelines are promoted/provided to assess the implementation of program goals?

The structure of teacher education programs and courses are also greatly affected by related factors such as the logistics of school and university calendars, available facilities, and the experience of teacher educators. That is the social and political environment that exposes pre-service teachers to the pedagogical issues of teaching physical education. For instance, in the case of the program studied, the teacher preparation stream is located and administered by the *Faculty of Education* — not the *Faculty of Physical Education (and Recreation).*

The success of any educational program is dependent on the people in the program — the educators and students whose qualities and assets are developed in the symbiotic construction of knowledge for practice. Teacher education programs depend on the practical extensions provided in field experiences by mentoring instructors (Sharpe, 1993) and cooperating teachers. As well, the orientation of a teacher education program can be greatly affected by the sustained availability of qualified, experienced teacher educators. Graber (1995) noted "a single powerful individual may be more important in shaping pre-service student beliefs than an entire program of courses and experiences."

The opportunity for future teachers and teacher educators to develop their own consciousness may be enhanced by reflection through various means and at various levels. The depth and focus of reflection may be an indicator of the teacher's awareness of the relationship between teaching (planning, instruction and assessment) and active learning.

## Section II: Situating Research in Physical Education Teacher Education

The purpose of this section is to set the context for pedagogy research in physical education. This will occur by first outlining how research and reform in teacher education have evolved. The concepts of inquiry and agency in PETE are presented by showing the connection between program orientations and program objectives and the selection of teaching and learning experiences. Second, a brief outline of a reflective model in teacher education (and in PETE) provides a framework for the research.

### Background research

Earlier research in physical education teacher education (PETE) focused on studying the occupational socialization of teachers into the profession (Locke, 1984; Templin & Schempp, 1989), based on the rationale that comprehensive knowledge of the context of teaching physical education would promote professionalism. Since the 1980s, more strands of PETE research has been interested in studying the implementation of teaching practice. Studies have focused on instructional methods (Rink, 1998; Siedentop et al., 1994), teaching styles (Mosston & Ashworth, 1994), curriculum models (Haslan, 1988; Jewett & Bain, 1985; Melograno,1998), teacher socialization (Templin & Schempp, 1989), constructivist learning (Allison & Barrett, 2000; Anderson, 1997; Siedentop & Tannehill, 2000), and of ways of knowing (Melnychuk, 2001). The analysis of research methodologies have also resulted in a spectrum of opinion as to the fundamental purposes of PETE.

In a 2004 review titled *Teacher education research in physical education*, Casey and Taylor elaborated on earlier efforts in undergraduate and graduate programs to promote different philosophical and theoretical perspectives in research, curriculum, and value orientations. Two theoretical research perspectives have served as a basis for research examining characteristics of physical educators - behaviour analysis and critical theory (Bain, 1990).

Behavior studies of teacher educators have examined how learned technical skills employed in teaching are acquired and refined (Siedentop, 1986). Investigations into teacher effectiveness (Hickson & Fishburne, 2003; Rink, 1996, 1999; Siedentop, 1989) have produced research with a mission of determining best practices that may be developed and reproduced in teacher education programs.

Other research in the theory and practice of teaching physical education has been more interested in looking at the individual in a teaching or school environment and the impact of external factors on the developmental context of socialization. For instance, some ethnographic studies outline the constructs of teacher identity (Armour & Jones, 1998, Evans, 1988; O'Connor & MacDonald, 2002). The scholarship of teaching physical education (Morin, 2003) has sought to encourage collegiality between professionals and educators to collaborate in research (Siedentop & Locke, 1997) and to promote agency in teacher preparation (Corbin, 2002; Morin, 2004).

## 1.1 Discourses about knowledge

Discourses conceptualized through a critical pedagogy are encouraging teaching professionals to reflect, and to ask questions (Fernandez-Balboa, 1997; Parker, 1997; Tinning 1991, 2002). Critical pedagogy has been a context to allow the advancement of discourse into the role of critical thinking in physical education. Themes of power and legitimacy, and political and social issues are also addressed in critical research (Bain, 1990). This research perspective of physical education pedagogy is acknowledged to serve both a political and a practical purpose. It has created renewed interest and debate regarding teaching theory and practice within the physical education profession. It has spurred an assessment of teacher preparation models that may also divide researchers in physical education pedagogy – those who deal with technical issues of the teaching discipline (knowledge *for* teaching physical education) and those who study teachers' roles, value orientations, professional experiences as texts (knowledge *about* teaching physical education).

In presenting an investigative profile of a PETE program it is appropriate to identify some specific elements that characterize any teacher education program:

- the content knowledge base;
- the philosophical and value orientations that set the conceptual framework for the content and experiences provided; and
- the participants involved – the preservice teachers and teacher educators.

## 1.2 Content Knowledge

Regardless of the subject area or program, methods courses are intended to introduce students to curriculum and teaching. Content knowledge may include an overview of teaching philosophy, styles and progressions, as well as approaches to (physical) education. Another aspect of the methods course is the integration of alternative opportunities to learn more about the profession of teaching (physical education).

Over the past decades, considerable research and discussion regarding the knowledge base in PETE (Siedentop et al., 1994; Ward & Doutis, 1999; Fernandez-Balboa, 1995, 1997; Hopper & Sanford, 2002) indicate that the field has not yet come to an agreement as to the best approach and most appropriate program content (De Marco & McCullick, 1999; Locke & Dodds, 1985; Silverman & Skonie, 1997; Tinning et al., 2001). Nonetheless, reform in PETE continues to promote innovation in teacher development (Corbin, 2002; Newell, 1990a, 1990b; Rink, 1993), lest the field of physical education risks never moving beyond philosophical chaos.

Cochran-Smith (1999) summarized the focus of teacher education research based on three forms of knowledge: a) knowledge *for* practice, b) knowledge *in* practice, and c) knowledge *of* practice.

a) Knowledge *for* practice represents a positivist stance with an emphasis on theoretical knowledge. This is demonstrated in universities that support "the conception that knowing more leads to more effective practice" (Hopper & Sanford, 2002, p.2), an approach that reflects the traditional model of instruction heavy on content directed by a knowledgeable educator with limited engagement by the learner.

b) Knowledge *in* practice is the bridging of theory with practice — praxis — and the dominant approach in teacher education. This approach supports models of professional development, reflective practice (Schön, 1983, 1987), and the advance of qualitative research methods to investigate the personal, interpretative process of teaching. From the perspective of 'knowledge in practice', educational research has flourished, forwarding concepts such as 'personal practical knowledge' (Clandinin & Connelly, 2000), pedagogical content knowledge (Shulman, 1987), practical knowledge (Russell, 1987).

c) Knowledge *of* practice is the most recent and, by some accounts, the most innovative perspective of body of knowledge in teacher learning. Through practical experience, theory is not distinct for it is always contextualized. In this case, reflecting on one's own practice is a post-modern perspective on pedagogy demonstrating the "transformation of consciousness that takes place in the intersection of the teacher, the student and the knowledge they produce" (Lather, 1991, p.15). "In this view of teacher learning, teacher knowledge is not separate from the knower, but is constructed within his or her intellectual, social and cultural contexts of teaching" (Hopper & Sanford, 2002, p.4).

Forms of knowledge parallel models of reflective practice — whereby the purpose and foci of reflection relate to the development of a personal theory of practical knowledge (and subsequently the effect that may have on an individual's identity). It also demonstrates the processes of decision making, critical thinking and assessment in the teaching act.

PETE research focuses in determining how to balance the acquisition and the application of content and pedagogical knowledge. These terms of reference demonstrate the extent theory and practice are inter-related in teaching and learning. It is possible to determine how program content and the implementation of practical experiences will impact learning *for* teaching. Keeping this in mind, it is possible to distinguish how teacher educators: (a) determine appropriate content for program curricula; (b) establish methods for improving techniques of supervision and assessment; and (c) legitimize the professional socialization of their curriculum.

### 1.3 Conceptual and value orientations

Value orientations are examined in socialization research and in curriculum design. In their investigations, Jewett & Bain (1985) determined that the orientation of a teaching model is based upon the assumptions related to individual development, social-cultural goals, and subject matter content. Feiman-Nemser (1990) suggested five different 'conceptual orientations' in teacher preparation (See Table 1). These frameworks provide:

> ... a set of ideas about the goals of teacher preparation and the means for achieving them. Ideally, a conceptual orientation includes a view of teaching and learning and a theory about learning to teach. Such ideas should give direction to the practical activities of teacher preparation such as program planning, course development, instruction, supervision, and evaluation. (p. 220)

Table 1.

*'Conceptual orientations' in teacher preparation* (Feiman-Nemser, 1990)

| Orientation | Focus | Description |
|---|---|---|
| **Academic** | Teaching as the transmission of knowledge and the development of understanding | Forms of knowledge |
| **Practical** | Primacy of experiences as a source of knowledge about teaching and a means of learning to teach | Technique and artistry of successful teachers |
| **Technological** | Knowledge and skills of teaching | Research on effective teaching |
| **Personal** | Learning to teach as a process of learning to understand, develop and use oneself effectively | Learning by experiencing real issues and professional situations and relationships |
| **Critical** | Highlights the teacher's obligation to students and society, challenging teacher educators to help novices learn to view school practices with democratic principles of justice and equality | Pedagogy as Text (Gore, 1990) |

Source: Feiman-Nemser, S. (1990) Teacher preparation: Structural and conceptual alternatives. In R. Houston (Ed.), *Handbook of research on teacher education* (pp.212-233). New York: Macmillan.

Rink (1993) extended the orientation typology for PETE (Table 2) into a conceptual framework that transmits beliefs and goals into program design (content and instructional experiences):

**Table 2**

*Orientation Typology for PETE*

| Orientation | Focus |
|---|---|
| Academic | Subject matter of games |
| Practical | Heavy reliance on field experience and practice |
| Technological | Emphasis on teacher effectiveness skills and research-based teaching skill development |
| Personal | Emphasis on personal meaning based orientations to growth as a teacher |
| Critical / social | Emphasis on the moral basis of teaching and the issues of equity and on the social dimensions of teaching |

Teacher education program objectives, competencies or outcomes have pedagogical, technical and socio-political elements. External influences present interactions and experiences within a PETE program. Value orientations are the basis for creating a teacher identity. An individual's engagement in inquiry and reflective practice strategies involve a meta-cognition of the learning experience. This awareness can help each participant as he or she tries to attach meaning to new information, choosing to accept, reject or alter it before applying it.

### 1.4 Objective of PETE

The objective of PETE programs is to develop competent physical education specialists. The preparation of physical education teachers depends on three factors in an institutionalized program model: 1) the quality of the teacher educators offering the content and expert leadership for the PETE methods course; 2) the schools and cooperating teachers involved in the field experience; and 3) the facilities and equipment necessary to provide appropriate experiences, both theoretical and practical, for learning to teach. Reform in the preparation of physical educators has been promoted over time (Grebner et al., 1982; Lawson, 1991; Locke & Dodds, 1984; O'Sullivan, 1996; Silverman & Ennis, 1996; Vendien & Nixon, 1985).

The research agenda in PETE is fundamentally shaped by a desire to describe and determine the most appropriate curricular knowledge, strategies and experiences to 'produce' quality physical education professionals. Notwithstanding, "program goals do reflect a difference in the way the models view human beings and the learning process. Some models reflect a commitment to a high degree of transfer of learning from the physical education setting to other aspects of life, while others concentrate on goals and objectives specific to the physical education setting" (Jewett & Bain, 1985, p. 83). In considering the relationship of socialization and reflective practice in the learning process, interesting position statements relative to the purpose of PETE abound. The literature is rife with the academic posturing vis-à-vis content knowledge, the relationship of theory and practice, the critical analyses, professional development models and the promotion of best practices.

### 1.5 Program objectives and student outcomes

Program goals are developed from general curriculum value orientations. The general breakdown of objectives in cognitive, psychomotor and affective domains traditionally followed taxonomies originally conceptualized by Bloom (1956), Harrow (1972), and Krathwohl (1964) respectively. From this original research, curriculum designers have identified the knowledge, skills and attitudes outcomes for programs. Such is the case in PETE, as an outcomes-based approach clearly outlines competencies to be developed by PETE program participants.

Through the examination of the *National Association of Sport and Physical Education* (NASPE) outcomes, we find support of teacher reflection. Belief statements promote a 'reflective practitioner' model as "an integrated and multidisciplinary approach to teacher preparation with a focus on learning experiences that cross traditional lines" (p. 5). Among nine basic standards for physical education teachers (See Appendix A), assessment, communication and inquiry through reflective practice are the foundational pillars to learning to teach. These NASPE outcomes are noted in the majority of PETE program descriptions and conceptual frameworks.

Educational jurisdictions and professional teacher organizations also promote specific guidelines and standards – expectations that the graduates will have developed the knowledge, skills and attitudes required to teach physical education. The aptitudes are promoted as valuable for the continued professional development of teachers throughout their career.

**Promoting inquiry in teacher development**

The key to teaching is to create an interest for investigation within the consciousness of the learner. For prospective teachers, it is imperative that the foundation be developed as part of a teacher's professional growth in the long term and part of their regular assessment of their teaching as it relates to their students' learning.

## 1.6 Reflection in teacher education

Reflective practice is an orientation that has received considerable attention in teacher preparation research and in professional development (Gore, 1987; Liston & Zeichner, 1987). Teacher education programs continue to encourage pre-service teachers to use reflective inquiry techniques (Carson, 1997). Tsangaridou (1994) defined reflection as:

> ... the act of thinking, analyzing, or altering educational meanings, beliefs, or products by focusing on the process of achieving them. This act might occur during or after the practice is completed. The primary purpose of this action is to structure or restructure knowledge and actions that inform practice" (p.28).

Reflective thinking engages a discovery process of perspective taking, of decision making, and of "the critical examination of beliefs, behaviors, and goals" (Castle, 1989). The purpose of critical reflection is to instill in students and teachers (developing and experienced) the habit of consideration and assessment. The manner by which this interpretive process affects a teacher's professional identity is integral to teacher success early in their career (Sumara, 2002).

By reflective practice, Schön (1983, 1987) implied that 'knowledge in action' "legitimizes a way of thinking that seems to go on constantly in teaching". This is an idea related to praxis in teaching – using reflection to reshape knowledge and apply it into practice (Richardson, p. 11). For many teachers, critical reflection becomes a purposeful self-analysis of not just their actions but of their value orientations as well (Ennis, 1994; Ross & Hannay, 1986).

## 1.7 Levels of Reflection

Teachers should engage in reflection at different levels: technical-empirical, socio-political, or moral-philosophical (Van Manen, 1977). These broader objectives have been frequently illustrated in socialization research to advance ideas on the technical, practical and critical forms of knowledge, and cognitive interests (Laboskey, 1994: p.32). The depth and focus of reflection implemented can vary - from a problem-solving technique, to a purposeful recognition of the critical goals of teaching and education in general. And, if it never goes beyond a behavioral or technical analysis of teaching skills, then the value of reflection is altered (Holt, 2001; O'Reilly, 1998). The traditional view of teacher education as 'technical' is supportive of replicating identified teaching skills that are deemed 'effective'. This perspective could be "reducing teaching to a simple, unproblematic process of skill acquisition and imitation of a more experienced professional (Schön, 1983).

Levels of reflection have also been termed respectively "descriptive, justified, and critical" and (Tsangaridou & O'Sullivan, 1994). As much as the depth of reflection has been noted, the timing and focus (target) of reflection are perhaps even more significant. This is perhaps difficult to identify in practical terms but can be observed in the daily practice of teachers, particularly in the structured context of teacher education courses. Tsangaridou & O'Sullivan use action verbs to associate the focus of reflection.

## *1.8 Promoting Reflection in Physical Education Teacher Education (PETE)*

A primary motive for the investigation of reflective practice in PETE is to realize that the experiences and methods used by teacher educators to introduce participants to the profession are significant in helping to shape their teacher identities. As Melnychuk (2001) noted, teacher educators need to create an environment that allows the 'voices' of student teachers to be heard, and to recognize that the process of learning to teach is a dialogue: an act of on-going communication, a cumulative process of negotiation.

Orientations, experiences, and methods used by physical education teachers through an inquiry-approach are significant. In a review of reflection in PETE, a number of themes and constructs are found to affect pre-service teachers' development of a professional identity (Dodds, 1989). Tsangaridou and Siedentop (1995) completed a comprehensive review of research on reflective teaching in physical education: "models of reflection and pedagogical reflective strategies have been used in pre-service and in-service teacher education" (p. 25). As such, there are a number of elements within a PETE programme that can affect the development (ie. learning and socialization) of novice teachers.

### 1.9. *Reflective strategies and alternatives in PETE research*

In physical education, research into how reflective inquiry is applied in teacher education includes program development of various models, methods and strategies that have been used by teacher education programs – throughout methods courses and during field experience (Cutforth & Hellison, 1992; McCollum, 2002; Placek & Smyth, 1995; Radford, 1994; Tsangaridou & O'Sullivan, 1994, 1997, 2003, 2005).

Reflective frameworks for learning to teach in physical education have been touted by teacher educators and researchers involved in methods courses and field experiences (Graber, 2001; Hellison, 1995; Hellison & Templin, 1991; Rink, 1998; Tsangaridou & O'Sullivan, 1994). There is significantly more reference to reflection in PETE in recent years, as evidenced by the related content of pedagogy texts in physical education (Schempp, 2003; Graham, 2001, 2004).

Inquiry-oriented methods have been commonly used in qualitative research in physical education and in teacher education. Narrative analysis (Sparkes, 2002) and personal experience methods (Clandinin & Connelly, 2000, 1994) outline learning strategies such as metaphors and developing an appreciation of case-based examination.

Other biographical approaches to "situating the self", such as a life history approach (Anderson, 1997; Pissanos & Allison, 1996; Sparkes, 1999, 1993) shape identity research by addressing *meaning* and *knowing* through personal theories (Griffiths & Tann, 1992). In this manner, teachers learn by experience – their own schooling, coursework, field experience and induction as well as the dialogue and communication they develop with colleagues.

McCollum (2001) completed her dissertation *The Reflective Framework for Teaching in Physical Education* by implementing the model developed by Tsangaridou & O'Sullivan (1994). The model (See Table 3) was incorporated as a guide to reflective thinking – promoting strategies such as journaling, case studies, and the use of metaphors in learning to teach experiences. McCollum's research (2002a) provided direction for research ideas and interview questions that were used in this study. (Appendix B).

*The Reflective Framework for Teaching in Physical Education* does promote several methodologies that promote reflection, including: peer observations, supervising teacher observations, videotape analysis, case method, post-lesson conferences, and student-teaching listserv postings. McCollum (2002a) noted that the RFTPE can be used throughout a PETE program as a model to use in assessment of teacher growth. In early field experiences it can help guide observations ... as well as allow PETE faculty to monitor progress in the nature of a pre-service teacher's reflection. Insight into the development of professional knowledge can be gained by asking key questions:

- Can the student teacher connect theory to practice by transferring knowledge gained in university classes to the school setting?
- Can the student teacher go beyond issues of classroom management to aspects of student learning, such as meeting the needs of all learners at all ability levels? (p.40)

Table 3

*The Reflective Framework for Teaching in Physical Education* (Tsangaridou & O'Sullivan, 1994).

Reflective Framework for Teaching in Physical Education

| **Focus**<br>**Level** | **Technical** | **Situational** | **Sensitizing** |
|---|---|---|---|
| **Description** | Reflecting on instructional or managerial aspects of teaching by providing descriptive information of an action | Reflecting on contextual aspects of teaching by providing descriptive information of an action | Reflecting on social, moral, ethical, or political aspects of teaching by providing descriptive information of an action |
| **Description & Justification** | Reflecting on instructional or managerial aspects of teaching by providing descriptive information and the logic rationale of an action | Reflecting on contextual aspects of teaching by providing descriptive information and the logic rationale of an action | Reflecting on social, moral, ethical, or political aspects of teaching by providing descriptive information and the logic rationale of an action |
| **Description & Critique** | Reflecting on instructional or managerial aspects of teaching by providing descriptive information, explanations and evaluation of an action | Reflecting on contextual aspects of teaching by providing descriptive information, explanations and evaluation of an action | Reflecting on social, moral, ethical, or political aspects of teaching by providing descriptive information, explanations and evaluation of an action |
| **Description, Justification & Critique** | Reflecting on instructional or managerial aspects of teaching by providing descriptive information, the logic rationale, explanations and evaluation of an action | Reflecting on contextual aspects of teaching by providing descriptive information, the logic rationale, explanations and evaluation of an action | Reflecting on social, moral, ethical, or political aspects of teaching by providing descriptive information, the logic rational, explanation and evaluation of an action |

Tsangaridou & O'Sullivan, 1994

Teachers may identify their own reflection in terms of depth and focus. The outcome of this research will dovetail on ideas that promote reflection in teacher education. McCollum (2002b) summarizes ways to improve teacher reflection below:

**Ways to Improve Teacher Reflectivity**

1. Use videotapes or audiotapes of lessons to assess teacher effectiveness and student learning.
2. Maintain a reflective journal. Writing down thoughts can help the physical educator focus on aspects of teaching.
3. Set specific, realistic teaching goals and plan ways to accomplish them.
4. Engage in peer evaluations.
5. Reconsider prior beliefs and be open to change.
6. Attend workshops and conferences.
7. Communicate with colleagues through email and group meetings.
8. Read professional literature such as journals, books, and newsletters.
9. Join professional associations.
10. Join listservs.

In her text *Teaching Physical Education for Learning* (1998), Rink has supported the idea of reflection being the foundation for 'the professional teacher as continuous learner'. Graham et al., (2001) recognize the significant differences between 'reflective teachers' and 'invariant teachers' (See Table 4). Summarized by Posner (1989), the difference between passive and active learners needs to be emphasized in teacher education:

> Non-reflective teachers can be characterized as passive agents in the environment. They uncritically accept the existing culture of schooling, search for ways to efficiently achieve ends, rely on routine behavior, and are guided by impulse, tradition, and authority rather than reflection.
> Reflective teachers are active agents who critically challenge the social nature of schooling, reconsider prior beliefs, and are open to change (Posner, 1989).

**Table 4**

*Comparison of Reflective Teachers and Invariant Teachers*

| Variable | Reflective teachers | Invariant teachers |
|---|---|---|
| Planning | Adjust lesson plans to differences between classes and children. | Use the same plan for each grade |
| Progressions | Base progressions on such factors as students':<br>1) rate and extent of improvement;<br>2) physical skill needs;<br>3) interest in a particular topic or activity. | Base progression on such factors as:<br>1) six-week units;<br>2) amount of material to be covered;<br>3) pre-determined criteria |
| Methodology | Vary the methodology according to factors such as:<br>1) student characteristics;<br>2) purpose of the lesson;<br>3) the ability of the students to accept responsibility. | Employ same methods with all classes and students and hope all will eventually fulfill teacher expectations. |
| Curriculum | Design curriculum for every class based on observed needs and abilities. | Use pre-determined content without considering factors such as student ability, interest or community influences. |
| Equipment & facilities | Modify activities and lessons to availability | Teach activity and lessons to use equipment and facilities |
| Discipline | Attempt to understand management problems, seek the causes, and modify teaching accordingly | Assume students that are misbehaving receive punitive measures to modify behavior |
| Assessment | Regular assessment of students includes self and peer assessment of own teaching | Assess sporadically without sharing targets with students; focus more on whether students enjoyed lesson, remained interested, and behavior. |

Source: *Children Moving: A Reflective Approach to Teaching Physical Education* (p. 65) by G.Graham, S. Holt/Hale, and M. Parker, 2001, Mountain View, CA: Mayfield.

Finally, Smyth (1989) summarized the value of reflection in developing teachers who can attach meaning to what they do:

> When teachers make connections in their personal biographies and the construction of their teaching conceptions through critical reflection, they begin to make sense of teaching beyond a set of technical acts and see more clearly how social and political factors have also been influential in the construction of the meaning of teaching. Being able to locate one-self both personally and professionally is the hallmark of a teacher who has been able to harness the reflective process and can begin to act on the world in a way that amounts to changing it. Adopting a reflective perspective on teaching is to deny the separation of thought from action and theory from practice. Physical education preservice teachers with stronger role identities were found to exhibit confidence in handling challenging situations and were able to implement and refine their own teaching styles.
>
> (Smyth, 1989, p. 7)

*Reflection 1:*

> *With respect to identity, I have examined myself as teacher and the role reflection has played in my personal growth throughout my career. This is not automatic for me and I welcome the challenge. In my multiple roles within physical education as a consultant and teacher educator, I feel a responsibility to share my experience about reflective practice and to guide learners – both students and teachers at various points in their career. What I really hope for is that my interest and passion is instilled in others around me to share. That way, colleagues and students may understand – not only 'content knowledge' but contextual knowledge. This awareness in teachers personalizes learning for students.*

### *2. Agency in Physical Education*

Advocates in physical education have called for teachers of physical education (and specifically teacher educators) to become "agents of change" (Corbin, 2002, Tinning, 2002). Critical pedagogy seeks to advance discourse about knowledge and critical thinking a) in physical education and b) about physical education (Bergmann-Drewe & Daniel, 1998; Mawer, 1999; McBride 1991). Along the same path, some teacher education programs support innovative strategies of reflective inquiry. The challenge for novice (and experienced) teachers is to develop individual and collaborative techniques and methods for reflective thinking. PETE reform (Dodds, 1985; Lawson, 1983; Solmon et. al, 1991) draws more attention to examining the processes of learning to teach.

Regardless of their orientations and objectives, PETE programs in post-secondary institutions throughout the United States, Canada, Australia and the United Kingdom generally include four common dimensions: (1) a shared vision; (2) an inquiry approach; (3) a meshing of theory and practice; and (4) a critical approach to curriculum and instruction (Graham, 1991). These basic components of a PETE program may be identified in course outlines; in listed objectives and standard competencies; in course assessments; text resources; and in the learning to teach experiences provided.

This chapter provided the overview to contextualize the research for this study. What follows in chapter two is a presentation of research methods used.

# Chapter Two

## Research design and methods: A case study

In a collaborative case study, pre-service teachers and teacher educators were encouraged to share their background, experiences with and perceptions of various reflective techniques during the teacher preparation program. The purpose of the study lends itself to the case method that "is employed to gain an in-depth understanding of the situation and meaning for those involved" (Merriam, 1998, p. 19). Research into the use of reflective practice does follow an orientation well suited for this type of investigation for the individual is at the core of the analysis (deVaus, 2001). To gain more in-depth knowledge of reflective practice in teacher education, the case study design provided various perspectives of a single context that complemented the field research and document analysis (Merriam, 1998, p.32). The researcher, as participant, developed a greater awareness and engagement in reflection throughout the study.

Research methods congruent with interpretive inquiry were used to present a new perspective on reflective practice in the physical education stream of the teacher preparation program at a large university in western Canada. To do that, the lived world of the pre-service teacher and teacher educator was investigated using a case study design (Yin, 1994; Stake, 1994).

Program document analysis was complemented with several qualitative research strategies – including participant observation, individual and group interviews, personal biography and narrative analysis – that were used to discover how participants in the physical education stream of one teacher education program engaged in reflection in course-based and school-based events. The nature of case study research is descriptive but, if multiple methods are used, it can generate more understanding of a subject. This design also includes several developed methods that will be detailed in this section.

In using these strategies, I was particularly interested in how these processes affected the professional development of teachers – with respect to reflective practice, to their pedagogic skills and knowledge, and as much as to their own identity as *physical educators* (Sharpe, 1993; Woods et al., 1997).

*Reflection 2: on what influenced the research*

> *My experience within a PETE program was an opportunity for professional growth that I felt would be exciting and a very telling snapshot of the current preparation of teachers in physical education. As an experienced teacher, I had been involved as a mentor in our school district's community of practice. I had been engaged with the local university program as a cooperating teacher and was very active in my coaching and PE network. I also was enthused when I heard that a few of my former students had entered into university seeking to become PE teachers. I suppose I felt good in that I provided them a chance to succeed and to appreciate the purpose of leading an active lifestyle. More to the point though, I became very much interested in the future of those entering my profession. I stepped out of the gym and went back to witness how future PE teachers were being prepared to teach. I wanted to find out more about who these persons were, how they learned, and what was important to them.*
>
> *This study is very much related to my current consultant position in program design and teacher support. I also recognize that there is much individual discrepancy as to the actual impact of the teacher education program vis-à-vis the preservice teacher's personal curriculum biography. I paid significant notice to the instructors in the PETE program. In many ways I hoped to know how these 'experts' were teaching and modeling behaviours and knowledge that our professional community promotes for 'successful' and 'competent' teachers of quality physical education programs.*
>
> *I also wanted to determine how my own beliefs aligned with the educational approaches I would experience in this program [one from which I graduated a decade earlier].*

1. How research unfolded

The study was developed not as an organizational analysis but rather as a way to report and describe what I saw, what I heard, and what I felt during my research term. I immersed myself in all aspects of the program. I attended various classes to observe what activities were used by different instructors to develop in students a knowledge base for teaching physical education. Data collection generally begins, in a more informal way, with casual observation. In the beginning assessment, I was looking for external evidence that the concept of *reflective practice* was present in program documents. I then began to seek the practice of reflection beyond the theoretical jargon found in teacher education research. As Holt (2001) recognized "there have been few attempts to demonstrate the practical value of reflection" (p.67), and first I needed to discover how the implementation of reflective teaching practices in PETE occurred.

Participant observation was a strategy used where I was engaged not merely as a passive observer. Participant observation really is dealing with the role an observer chooses to take. Much of the decision can be relayed to how close to get to the action, whether to be immersed is the best path to good recording. By keeping a certain level of detachment, objectivity seems the correct objective of procedures for observers who seek to limit their effect on the subject's 'normal' behaviour. So, I knew there might be a unique opportunity to access the participants and witness their experiences of reflective teaching strategies first hand (Donmoyer, 1990). Yin (1994) comments on how this may affect data collection and analysis:

> Many have argued that such a perspective is invaluable in producing an 'accurate' portrayal of a case study phenomenon. Finally, other opportunities arise because of the investigator's ability to manipulate events and situations. Only through participant observation can such manipulation occur, as the use of documents, archival records, and interviews, for instance, all assume a passive investigator. The

> manipulations will not be as precise as those in experiments but they can produce a greater variety of situations for the purposes of collecting data. (p. 87)

I engaged more directly as both a course teaching assistant and as a university field experience facilitator. Curricular knowledge and classroom theory was noted and practical 'learning to teach' situations were viewed. Observation was the critical foundation for the research and it was during this phase that I began to develop ideas and questions and to reflect about how the PETE program was being implemented. I wondered:

- How are the events I witness linked to the philosophical orientation in the faculty?
- Are students aware of the learning and teaching processes being offered?
- Are the instructors conscious about how their program and delivery are related to the written course objectives and the general goals of teacher preparation within the Faculty of Education?

*Reflection 3: on multiple research methods*

> *It was very interesting to see if the program extended to a variety of school environments provided student teachers with a relatively common experience. Through the first phase of initial observations, field notes and collegial dialogue, it became apparent that it would be important to also complete a document examination: to collect and analyze program and course documents which may support the reflective focus of this teacher education program. One way research data could have been collected was through a survey approach. Yet this strategy was not selected as Yin (1984) noted "that while surveys can try to deal with phenomenon and context, their ability to investigate the context is extremely limited (p.23). Although the development of a written questionnaire administered to the PETE cohort may have allowed for a greater sample size, it is not uncommon in the analysis of survey responses to have difficulty extrapolating results. I also acknowledged that the questionnaire survey method would likely involve a more clinical, statistical approach to data analysis. I preferred to engage in an arts-based inquiry method that Anderson (2005) has promoted as the foundation for teacher professional development.*

It was determined that it would be necessary to have conversations with participants in order to cross-reference the actions observed with more direct inquiry. So, following the practicum experience and the conclusion of the teacher education program, I conducted a number of interviews – using both individual and group formats. The scripts of these discussions were analysed to identify themes that could be aligned to the research questions.

## 2. Participants

### 2.1 Recruitment of participants

The recruitment of participants for the study was made at the conclusion of the field experience, at a time when the majority of pre-service teachers were completed their program. In order to complete their undergraduate education degree though, some students who had completed their field experiences still required other courses to be taken during the summer or fall terms. The search for participants was made through brief presentations outlining the research project. Announcements were made to the all students in the *Advanced Professional Term* course sections and at the final '*callback*' – a post-field experience cohort gathering. Other participants were approached through word of mouth and provided background information on the research (See Appendix B).

From approximately 130 possible candidates, seven preservice student teachers (four females and three males) agreed to take part in the? research. Detailed sketches of the research participants are described later in this methodology chapter and outlined in the ethics proposal (See Appendix C). These persons were provided the research information and letters of consent prior to their participation. Then, interviews were scheduled and planned to take place on campus at a time convenient to the subjects. At the beginning of each interview, the project was again outlined to the participants; all those who expressed an interest in the study attended the scheduled interview and completed the necessary letters of consent.

### *2.2 Description of PETE Participants*

Participants in teacher education programs include the student, the course instructor, the university facilitator /supervisor, and cooperating teacher / mentor. These persons have specific roles and bring different perspectives that have significant influence on the quality of any teacher education program. The learning and development of teachers is impacted by (a) the presentation of information by instructors; (b) the content knowledge selected; and by (c) the experiences provided to program students.

The successful implementation of reflective practice in PETE is affected by engaging all participants in this subject strand of a teacher education program: the preservice teachers, the teacher educators, and the researcher. As well, the impact of the school-based cooperating teachers during the field experience phase is paramount. Finally, the role of university field experience supervisors was recognized and acknowledged. The participants involved in this study were:

- Pre-service physical education teachers (7), having recently completed their Advanced Professional Term. These subjects may not have graduated but had completed all program course requirements related to physical education.
- Teacher educators (3), who have been involved in the planning and instruction within the physical education stream of the program delivery.
- The researcher inextricably linked as a participant in the investigation.

### 2.2.1 Pre-service Teachers

Though their personal biographies differ individually, future physical education teachers tend to follow a fairly common journey to the PETE program. In fact, it is quite common for these students to already possess a general undergraduate degree in physical education or in another subject prior to entering the teacher education program. A majority of PETE students have attended post-secondary schools (in undergraduate university or college 'university-transfer' programs) for a minimum of three years prior to their first teaching methods course. Traditionally, teacher education students have come from a variety of backgrounds. However, students in physical education streams appear to be part of a more homogeneous grouping – with common demographic characteristics. Most students appear to have a background in sport and physical activity. Most students appear to be active during the teacher education program. A majority have experience as athlete and/or coach in the traditional sports common to youth in western Canada, played in high school and community settings.

Following the individual interviews, sketches of the participants were prepared. Here are the snapshots of the PETE students involved in the study. (Note: pseudonyms have been used to maintain the anonymity of subjects):

**Subject A (Amin)**

Amin is a 22-year old student teacher of Arab descent. He has an outgoing personality that is inviting and motivating. Amin is a native Albertan (second generation) who grew up in a large urban setting – learning to make ends meet in a 'rough' neighbourhood. He enjoys soccer and dancing and is interested in making PE fun for everyone. He is concerned about the inactivity of the average youth and hopes to make a difference working with middle-school students. He transferred to university following three years of undergraduate classes at a college. Amin likes to be an active learner and teacher; he dislikes the classroom format but is always willing to speak his mind in peer discussions. He realizes his knowledge and achievement in the undergraduate program is not enough to prepare him therefore he tries to make connections and identify resources for his professional development.

**Subject F (Frank)**

Frank is a mature student with a wife and two children. Following a few years in sport administration, as well as in coaching, he decided to go back to school to become a teacher. Frank's life situation has given him focus on achievement and completion of the program. He is not afraid to challenge the instructor's perspective in class. He believes his interest is in making young people learn about physical activity as a way to balance life, to reduce stress and to stay healthy. His teaching style focuses on fitness-based activities that can be modified for each student to perform to his / her potential. He was the first subject to show an interest in the research project and communicated regularly with me during the field experience – asking questions and sharing his practicum highs and lows.

**Subject G (Glen)**

A varsity-level volleyball player, Glen is a studious individual who appears to be always thinking about what others say in class. He is a college-transfer student who continues to play at an elite club level. He admits to using a direct approach to teaching the traditional activities but is trying to discover alternative games and wants to open up ways for all students to be active and enjoy PE. Glen believes that more time is needed to discuss practice and issues in the field of PE. Glen does not like writing but feels he is a critical thinker.

**Subject H (Hal)**

Hal is in his mid-twenties and enjoys outdoor pursuits. He is an avid rock climber and never was involved in the sports common in high school athletics. He works out a lot and wants young people to understand the value of a wilderness experience. He is aware of the limitations schools place on higher-risk activities but hopes to be in a school environment that is supportive of his interests. He is a quiet student in class but an excellent writer. His mature comments show he knows of the socio-political forces in schools. Hal in class can 'stir the pot' once in a while because he wants to challenge the status quo. He enjoys researching articles online about various issues in PE. Hal is also a talented artist who can illustrate a unit plan as easily as he can sketch a route on the face of a mountain.

### Subject J (Jill)

Jill is 25 and comes from southern Alberta. She attended college prior to this PETE program and taught English language courses in Japan for two years. She says she really came into her own then and wants to teach PE because it was the most powerful course for her in high school. Jill has a strong identity. She is very personal and professional with all her peers – and the first to take the lead on any group tasks. Jill feels that reflection come naturally for her – she is thinking 'all the time' but doesn't feel that completing a logbook is effective because she just ends up writing what she expects will be what the reader wants to hear.

### Subject K (Kate)

Kate is very much a non-athletic type and admits to being overweight and inactive. She doesn't feel her experience in PE was positive and yet she wants to be a physical educator. When asked about this she shared that when she was in a small rural school where the focus was on the football team – and that's it. "If you weren't on the team (or dating someone on the team), you didn't matter". Kate wants to work with a particularly marginalized group in an adapted PE setting – students with severe behaviour issues. Kate feels she has the tough but fair personality to encourage troubled students to get ahead by setting activity goals – like her own personal aim to finish a marathon.

**Subject M (Mary)**

Mary is worried about obesity in youth and adults. She has always been an active person and wishes PE programs would provide more time for recreation. She coordinates intramural programs and volunteers as a coach in a junior high. Mary is anxious to finish her studies and field experience. Mary has learned English since she arrived from Russia in 2000. She does not partake very much in group discussions but who knows how to develop her teaching by rehearsal and observation.

### 2.2.2 Teacher Educators

The leadership of teacher educators in PETE incorporates a comprehensive number of tasks and roles aside from teaching methods courses: administering field experiences, selection and dialogue with cooperative teachers, the supervision and assessment of PETE students. Along with this, educators are responsible for conducting research (from application and development, to execution, to publication and presentation of findings), serve on various committees, mentor graduate students and provide service and advocacy to their professional association. Given these workloads, it has become fairly common for PETE programs (and some other Faculty of Education subject streams) to use graduate students, visiting teacher educators, and retired teachers and administrators to teach courses and act as facilitators in field experiences. This program reality was examined and discussed by PETE instructors, participants and PE professionals.

Here are thumbnail descriptions of the teacher educators who participated in this study: (Note that names have been replaced with pseudonyms in order to maintain the anonymity of subjects.)

### Subject B: Bill

Bill is the instructor of the curriculum and instruction methods course in PE at the Faculté Saint Jean. He has been seconded by the university for a number of years to offer the Physical Education methods course to both primary and secondary stream preservice teachers. He has been teaching grades K-12 physical education for eight years in a smaller francophone school district based in Edmonton. His experience in physical activity extends from his background as an elite hockey player in the Quebec Major Junior ranks. Having completed his hockey career, Bill earned his undergraduate formation in teaching physical education [or as his reminds himself 'human kinetics – the study of movement']. Bill also has considerable coaching background – including being in charge of community-based youth sport teams and in directing hockey camps and school programs. His perspective in PETE is that professional growth is the foundation for improving the isolation and marginality often felt by physical educators. His interest is in motivating the masses by finding a variety of activities that interest his students. In doing so, Bill offers many outdoor experiences and team initiatives that teach his students as much about collaboration and community. This is in contrast to an approach he used to teach in secondary school that was focused on individual skill development.

### Subject C: James

James represents an alternative perspective in PETE in North America – that being an international professor and graduate student. A native of China, he has extensive background in Eastern Movement disciplines as well as team and individual sports. His personal research interests in PETE include comparative curriculum inquiry, and the professional development of PETE students. While he has some teaching experience in his homeland, James' knowledge and background of the Alberta curriculum and of Canadian physical education issues is limited to his academic studies. He has used various teaching styles but will often depend on the traditional, teacher-focused approach. In discussions, James admitted that his approach to PETE is heavily influenced by his culture. The activities he leads are those traditional games and sports to which he was exposed to as an athlete and student in China's sport academies. James has been involved with the PETE program for three years and has experience with both specialist and generalist methods courses.

**Subject D: Michael**

Michael is considered a career physical educator, having over a decade experience in school environments. His graduate studies and teacher educator experience took place in western Canada at three university institutions. Michael has taught a variety of pedagogy courses, including the physical activity courses (PAC)s. He has taught in alternative, urban, and rural settings and worked with various populations, including aboriginal high school students. His area of expertise is outdoor education and his research investigations in female PE teachers' value orientations and teacher effectiveness research. He demonstrates a specific interest in learning how to engage student teachers to be competent, proud and hard working about physical education and active living.

### 2.2.3 Other Participants involved in PETE

Bognar (1999) focused his dissertation on the role of teacher assistants being very collaborative for creating an environment supporting learning to teach. Reflection was the foundation of research in teacher preparation by Sawatzky (1999) and by Holt (2001) who shared their personal experience as teacher educators. Among his projections, Holt noted that the focus of learning sport specific skills can be too technical. Instruction in PETE classes may reflect an approach to teaching physical education that is based on students acquiring skills through observational learning and practice. However, in learning to teach, he recommends that it would be appropriate to provide pre-service teachers a variety of teaching methods.

In modeling a variety of teaching styles, student teachers may realize that the focus in teaching should be to give learners a chance to wonder and to think before they understand. That different perspective on teaching PE could be incongruent in the PETE participant's understanding of knowledge construction and teaching orientation. Livingston (1996) also studied factors affecting teacher preparation in physical education – including the knowledge base and background of course instructors – and concluded that this a significant factor in the quality of the PETE learning experience. Among her conclusions, Livingston recommended that PETE program coordinators consider the educators' background and philosophical perspective in practical and theoretical terms.

## 3. Data collection

Data collection and analysis was systematic in order to properly investigate the phenomenon. The researcher engaged in multiple methods, reflective techniques, and processing tactics in all phases of the research: narrative analysis, observation, field note-taking, focus group discussion, individual semi-structured in-depth interviews, personal journals, participant observation and conversation, listserv discussions in a continual process of triangulation (Miles & Huberman, 1994). Data that served as evidence for this research project was collected and compiled from ontological inquiry methods, including:

- Field / Classroom observations - Observations, field notes and reflective writings during the 2002-03 academic year; and informal collegial dialogue with teacher educators;
- Program Documents - Teacher education program documents and course materials, and related Faculty research (ie., Field Experience Handbook, course outlines);
- Dialogue – Verbatim transcripts of in-depth interviews and focus group discussions.
- Researcher's lived experience – in faculty and as graduate student.

The variety of methods used, as well as the data collected, did not necessarily follow a set of pattern or schedule. Instead, I discovered that as I immersed myself in the research I would regularly shift forward and backward, inward and outward (Connelly & Clandinin, 1997) in my 'meaning making' and 'making sense' of the data information and related readings. This helped reinforce my own reflection and empowered my attention to multiple perspectives – in relation to an observation, action or statement.

What follows in this section are descriptions of specific strategies used during the study. The strategies were used in a complementary fashion of triangulation, in order to establish relationships between data and to help in the analysis and discussion of findings.

### 3.1 Observations, field notes and journal writings

In the process of journaling, observations, comments, ideas, questions and reflections were made in an open format to extend the inquiry into the application and rationale for reflective practice in physical education and in teacher education. The content of the notes and journals come from a few perspectives:

- As a former student in teacher education I took a look back to my own preparation;
- As a my current role as teacher and district Physical Education Consultant;
- As a course instructor; and teaching assistant in PETE;
- As a former cooperating teacher; and university facilitator;
- As a researcher

In these different roles as researcher, I was involved in progressive personal reflection and participant-observation. During the project, I engaged in taking field notes of observations made during the various activities of the methods courses. These courses took place in a number of learning environments including: classrooms, gymnasia, alternative spaces such as an outdoor learning center, multi-sport complexes and computer training laboratory. This data collection occurred during an initial six-month phase of limited, indirect involvement with the PETE program - except for providing assistance to the teacher educators, participation in a leadership forum, and presenting a professional workshop to the two cohorts (PE Minors and Majors). This research period was characterized by: (1) observation of participants, (2) self-assessment and reflection on my own experience with pre-service and in-service PETE and (3) collegial discussion with past and current teacher educators.

### 3.2 Document analysis: Program materials and course outlines

A primary source of data for the study derived from the *Faculty of Education* and the teacher education program information posted in official university documents, website and publications. These included the following key documents:

- University Calendar
- Faculty of Education *Handbook of Field Experiences* — 2002 Edition
- 1989 Task Force Report *Exploring and Mapping the Future: A Focus on Priority Issues*
- 1992 WestCAST Conference: *Crossroads and Horizons in Teacher Education*
- 2003 WestCAST Conference: *Re-Framing Teacher Education: The Changing Landscape*
- Faculty profiles
- Related research on ‘reflective practice’ in teacher education

Reviewing these documents helped to determine what kind of experiences and assessments were presented to the preservice student teachers. Course outlines of all major and minor physical education curriculum and instruction courses (Elementary and Secondary) from the past several years were examined in detail for the period from 1994 to 2004. Through document analysis, the stated course outcomes framed this phase of teacher preparation — where curriculum theory and instructional experience are integrated to the teaching of physical education. They provide significant information as to the variety of activities, types of assessments and general outcomes for the participants in the 'Curriculum Methods and Instruction' course: "(1) understanding the needs of the learner; (2) planning for quality learning experiences; and (3) developing a professional identity" (APT Course Outline, 2003).

### 3.3 Interviews and focus group discussions

A third major source of information was provided from ten 1-hour interviews conducted on the university campus with three (3) teacher educators, and seven (7) pre-service teachers. Semi-structured individual interviews were chosen as the most appropriate method of data collection. The semi-structured interview melded questions or prompts structured with communication strategies (e.g. rapport, listening, restatement, clarification and persistence) in a conversation between subject and interviewer. In the end, a strong interview allowed the subject to extend comments in the areas of interest to the researcher.

This method allowed participants to talk about their experiences and identify issues that were important to themselves, within the broad framework of themes that were of interest to this study. Learning through conversation was selected over the possibility of administering a survey because it was deemed more contextual, with more descriptive focus to get to better appreciate the perspective of participants.

### 3.3.1 Development of the interview questions

Interviews generally followed a similar set of questions or statements that allowed the participant to respond accordingly, as advocated by Spradley (1979). Semi-structured interview questions were prepared in order to respond to the research questions and themes associated with reflective practice. (See Appendix D)

The development of the interview questions was guided by specific themes that would be relevant to both groups of participants — the teacher educators and the pre-service teachers. I put forward questions and statements structured around themes that approach different perspectives on the experience, application, acceptance and appropriateness of reflective practice for physical education student teachers.

As the researcher and subjects had come to know each other within the PETE program – through shared experiences, methods courses and social interactions, the interviews were open-ended and flexible discussions. It was possible in all interviews (both individual and in focus groups) to allow the discussion to flow into various themes. The open-endedness of many questions invited subjects the freedom to reflect-in-action. The participants saw the process of voicing one's viewpoints in such an environment as positive and non-intimidating.

Interview themes extended participants to focus on their background experience, on reflection as a teaching tool, as well as share their perceptions of different related strategies and elements of their teacher preparation programme. Themes were inspired by questions and ideas found in the review of related research (Armour and Jones, 1998; McCollum, 2002; Melnychuk, 2000; Sumsion, 1999), as well as current texts used in PETE courses (Graham et al., 2001a, 2001b; Rink, 1998; Schempp, 2003; Silverman and Ennis, 1996).

Throughout the interview, participants were asked what factors that they considered or focused upon during reflection on practice. All interviews were tape-recorded and transcribed; participants being given the opportunity to see the transcription of their interview. Assurances of anonymity and confidentiality were given, and all transcripts were therefore stripped of any identifying characteristics in line with standard research practice.

### 3.3.2 Focus group interviews

Two focus group discussions followed for both groups of participants: (1) pre-service teachers and (2) teacher educators. Rikard (1992) identified that while it is an underutilized technique in PETE research, focus group interviews provide a setting for multiple participants to express opinions, ideas and feelings about a shared experience in an interactive setting. Carefully selected questions were used to verify transcript statements and to further probe the themes and topics of the initial discussion. This structure allowed flexibility over the direction and depth of the discussion and seemed to be well received by participants. In pre-service teachers, it may have provided a more relaxed, comforting environment; while with the teacher educators, it gave rise to a collegial discussion on program orientation and implementation. With the participants' consent, individual and focus group interviews were recorded through audiotape media and then later transcribed, with pseudonyms introduced. Participants were asked:

- to share background information (i.e. experience in Physical Education; processes involved in deciding to become a teacher);
- to describe their perspective on the PETE program and courses (i.e. what aspects of the program they considered useful/valuable; and
- to describe different strategies and learning experiences (that may have affected their professional growth and their perspective on reflection). Conversation topics and

viewpoints differed among the student teachers and the teacher educators due to their perspective on the program.

4. Data Analysis: What was done with the data

In collecting and describing the data from a variety of sources, the researcher reviewed it, looking for key issues, similarities, differences, recurring ideas, clustering, patterns and relationships. By coding and categorizing the data according to methods outlined by Miles and Huberman (1994), dominant themes emerged to be analysed and interpreted. In making sense of the data, different tactics were used to verify, speculate and to introduce possible gaps of information. The nature of findings was formatted in order to answer specific research questions (Wolcott, 1994).

Reflection initiated by the actions and comments of participants was further extended through the review of notes and related readings. The discussion and observation phase allowed data to be gathered in a non-invasive manner. The result of this phase provided a collection of field notes on teacher and student perspectives, actions and reactions to the content and learning activities of the PETE program.

5. Limitations of the study

The limitations of the findings are relative to the physical education stream of teacher education at a major university in the western Canada. This includes the major (specialist) and minor courses planned and delivered by a cross-faculty program administration for pre-service teachers in the *Faculty of Education* and the *Faculty of Physical Education and Recreation.* Some students may have entered the PETE program from outside the university context for this study (ie. university transfer courses from other post-secondary institutions). There is also a particular distinction of the views of specialist teachers in secondary physical education compared to those students who may have received a 'generalist' preparation more common for elementary teachers.

The objectivity of the study was influenced by the personal immersion I had with the program. The data collection and analysis meshed the ideas and the shared experiences of participants with my own personal observations and impressions. My journey into reflective practice was significantly affected by an enhanced awareness of the process and the impact various strategies may have on the levels and foci of reflection. I recognize that to remove myself from the data collection would make it difficult to grasp the personal meanings associated with the themes of the study. For that reason, I explain further why an alternative method of data collection that may have been able to increase the scope and reliability of the data was not selected. Such conceptual choices were made to learn from the data collected as well as from the reflective research process.

## 6. Delimitations of the study

The delimitations in the findings of this study are the research design and the methods and other parameters for the project chosen by the researcher. These include: (a) defining the criterion set for establishing participants; (b) determining the temporal order of different data collection techniques; (c) acknowledging the dual role of researcher and participant observer. Throughout the research process, efforts were made by the researcher (and program supervisor) to predict and prevent external factors that may have influenced the results. Using a qualitative methodology, the personal perspective of the research participants is recognized; their voices and beliefs are very significant but may or may not represent the majority view.

The participation of students and teachers is directly linked to the data collected and the subsequent analysis. It was recognized that the use of other research methods, such as a survey questionnaire administered to a larger pool of program participants, may have yielded different information. A small number of participants shared personal opinions; their individual stories had elements that did affect the research bias. However, evidence of reflection was ever-present regardless of background and apparent characteristics of the teachers and students.

### 7. Ethical considerations and safeguards

See completed Ethics Review for details and appendices (p. 14, Section IV).

Each participant in the study was required to carefully read an information letter (and listen to a short presentation by the researcher/ interview facilitator) which outlined the nature, purpose, length and organization of the study. In outlining the research, the following information was provided: research methods with specifics related to participant commitment, ways in which data analysis and interpretation is verified with participants and kept secure, procedures for participants to deny participation or to opt out at any time without penalty, procedures to ensure anonymity and confidentiality, procedures to ensure no harm or risk to the participants, and ways in which findings will be disseminated and/ or published. Following this, the participant acknowledged an understanding and interest in participating, signed a consent form, completed a background information survey and arranged an interview schedule. At the time of the interview, the subjects were allotted sufficient time to consider various questions and were encouraged to extend their thoughts and ideas throughout the conversation. In some cases, subjects also chose to follow-up on their ideas by phone and email communication. Field notes were taken during responses relative to support specific questions and themes discussed during all focus group and individual interviews.

## Summary on Methods

As this case study incorporated personal experience methodology, the narrative results are the voices and personal reflections of the participants – teacher educators and preservice teachers recently involved in the program. Their perspectives on reflective practice and their experience with it are portrayed in their telling tales. The stories gathered are valuable independently as each participant's constructed reality is a result in itself (Sparkes, 2002). When read, compiled and grouped, the perceptions of teacher educators and student teachers are represented and acknowledged. These accounts focused on issues and dilemmas but also on the process of noticing. Noticing themes that surface from the discussions make up the rendering of reflection in the PETE program. The transcripts were stories that were read and re-read; the details matter less than a holistic view of how participants were aware, motivated, disenchanted, challenged, frustrated, pleased, confused, and inspired by reflective practice.

During the research, notes that were made during field observations and interviews added insight to the context. Even telephone and email communications that spanned during the time data was collected and analyzed provided interesting information. Time to reflect on the research data and process was most appropriate to completing the study.

*Reflection 4: More on methods...*

*I have chosen to limit it in the following ways to make my report manageable. I recognize the methods used in data gathering to collect information on reflective practice are themselves significant representations of certain applications for reflective inquiry in teacher education. The analysis, description and interpretation of reflective practice do not lend themselves only to recorded data. The reflective process takes place inherently in discourse and will be recognized in its raw form in conversation (including email and telephone discussions) and in reading the narrative (ie. Journal entries and interview transcripts).*

# Chapter Three

## Results and Data Analysis

This chapter comprises a description of the data collected during the research through a variety of methods, including: document analysis, participant observation, semi-structured and focus group interviews.

The purpose of this study was **to better understand reflection in physical education teacher education (PETE)** in the following dimensions:

- the background of participant pre-service teachers and teacher educators;
- the reflective strategies used in a PETE programme at a large Canadian university;
- the perceptions of participants towards reflection and reflective strategies; and
- the concept of the reflective practitioner in PETE as an orientation for teaching and as a professional development model.

In sum, I was interested how pre-service student teachers and instructors in one PETE program are able to develop reflective skills that support 'thinking outside the box'. I supposed that establishing reflective practice in new teachers would enhance their self-awareness and their abilities to cope with the dynamics of teaching physical education through active learning.

Some of the information identified in the findings derives from concrete documents containing statements and policies promoting reflection as an approach to learning to teach. Other results shared in this chapter consist of real events, of viewpoints and impressions reported by research participants, and of observations made by the researcher. The data reported speaks to the incidence of reflective strategies within one PETE program – specifically identified during methods courses and during the field experience. The analysis of findings is meant to provide some support that the current model for teacher preparation being implemented prepares teachers to engage in reflective practice. The commitment to reflective practice and inquiry was discovered in official faculty materials and in the observation and reporting of activities and learning experiences provided to the program participants.

As themes are addressed throughout the chapter, references to research may be made to compare and contrast findings with other related studies. Results shared outline the views of the participants involved; the student teachers and teacher educators implementing teacher preparation in physical education at one university in western Canada.

To better understand the flow in this study, this chapter is divided in the following sections:

> **Section I** provides the *descriptive summary of data collected* and information on how the process of data collection may have impacted the study.
>
> **Section II** speaks to the *document analysis* of program materials (course outlines, field experience handbook and department policy and research) and information related to the university's perspective on reflective practice.
>
> **Section III** includes *a summary of reflective strategies* identified to be implemented within the existing program during the time of the study. These findings are based on observational data and perspectives shared in interview and focus group discussions. In a detailed fashion, each approach presented will be described. As a whole, reflective techniques will be addressed in the 'discussion' chapter.
>
> **Section IV** includes a compilation on the nature of *preservice teachers' dispositions, experience and engagement with reflective inquiry.* These findings were extracted from field notes, observations and the in-depth interviews. References will be made to

specific components of the program as preservice teachers' insights will be detailed to identify strategies and aspects of the teaching/learning environment that were reflected upon or that exposed them to the inquiry process.

**Section V** is the summary of the *perceptions of teacher educators* involved in the PETE program, and will include identified themes, concerns and opinions related to the implementation of reflective practice in all aspects of the program.

## Section I: Descriptive summary of data collection

This section provides information on how the research processes of data collection, participant sampling, methods and context may have impacted the study.

### 1.1 Research timeline and context

This research was limited to the physical education stream of the teacher preparation program at one large Canadian university. The review of related literature of reflective practice in PETE and the collection of data took place from fall 2002 to December 2003. The initial research proposal was developed and submitted over the 2002-2003 school calendar. During that period, I was involved in field observation and systematic document gathering within the undergraduate and graduate streams of the secondary school PETE program. I interacted with the program coordinator at the Faculté Saint-Jean, an affiliated francophone university campus providing a francophone equivalent PETE teacher preparation program.

During my residency, I took numerous opportunities to dialogue with colleagues (graduate students, teacher educators and mentoring physical education teachers) to discuss my research and to help in the development of interview themes and questions. Through my participation in research seminars and readings, my growing knowledge and awareness of the topics and issues about the state of PETE and educational research in general was significant.

A case study of the 'lived experience' (Van Manen, 1990) of learning to teach in physical education (Melnychuk, 2000) was contextualized by my observation and immersion into a 'real' condition of learning to teach at the post-secondary level. I experienced first hand the implementation of teacher education program delivery, focusing on the teaching of prospective physical education teachers. I noted the program structure and instructional design. I realized how curriculum planning takes place at one institution – and how this may be affected by the faculty (the logistics, the politics and administration of courses) and the influence of strong leadership advocating for a subject area, physical education, that is as marginalized in schools as in university.

Perhaps most significant to me was the attention and value (or lack of) associated with the teacher educators' service and involvement in the preparation of teachers. While this may be a focus of the undergraduate program and associated administrative personnel, I soon discovered that many of the faculty professors were not directly involved in the delivery of the teacher education program.

### 1.2 Sampling/Recruitment of Participants

In determining the scope of the project, the need to gain perspectives from teacher educators and preservice teachers, and the reality of procedural logistics, I knew the window of opportunity was small. I also was unaware of the amount of time required to complete interviews and data collection. Therefore, it was determined that having a small 'core' sample of instructors and students would be realistic, complementary and appropriate for the case study design.

As outlined in the project introduction, and in the ethics proposal, the nature of the research study did not put anyone at risk. Participants were not to be negatively affected by their involvement in the project and were always able to remove themselves voluntarily at any time. Their engagement was limited to a single one-hour interview and any follow-up member check.

*Reflection 5: On data collection / data analysis*

> *This study was also an exercise in data collection and the discovery of a new approach to doing research. As the data collection progressed during the study, I became more aware that the choice of a qualitative research design would steer me into un-chartered territory. The choice of using either a questionnaire survey over a post-program interview may have addressed themes to a larger sample size however I did not expect to be able to gain a more in-depth knowledge of the way reflection was happening on an individual level. An inquiry method reflects a study's interpretive purpose into a story. In other words, if I were to be able to describe the context of this report as the setting, the subjects as the characters, and the plot as the focus for the study, I would have accomplished the descriptive task. This would not be enough though. To summarize the findings relative to a larger group is to complete a descriptive analysis only. To enrich this text, I felt the need to allow the reader to develop their own 'meaning' of what has been reported.*
>
> *The story involves the experiences of both students and teachers in a PETE program. These distinct groups have a perspective that is useful for guiding teacher education programs. By using multiple data sources that offer insights into how they live reflectively, the setting and the story line laid out may help to better understand who is involved in PETE and how they construct meaning of that experience (Pissanos & Allison, 1996).*

## Section II: Document analysis of program materials

In this section, I report on the course outlines, field experience handbook and department policy and research focused about reflective practice. The primary source of background data for the study was derived from the Faculty of Education and from the undergraduate teacher education program information posted in official university documents, website and publications. It was through document analysis that the stated course outcomes framed this phase of teacher preparation — where curriculum theory and instructional experience are integrated to the teaching of physical education.

The university teacher education program may be divided into three parts: foundation courses in pedagogy, subject specific curriculum and instructional methods courses, and the field experiences. Pre-service teachers are presented theoretical and practical knowledge throughout their residency. The residency term for the undergraduate program generally lasts four years (8 terms). Students registered in the after-degree route normally take two years (4 terms) to complete the Bachelor of Education program. Reviewing teacher education program documents helped to determine what kind of experiences and assessments were presented to the pre-service student teachers. These included the following key documents:

- University Calendar
- Faculty of Education *Handbook of Field Experiences*, 2002 Edition
- 1989 Task Force Report – *Exploring and Mapping the Future: A Focus on Priority Issues*
- WestCAST 1992 Conference Proceedings: *Crossroads and Horizons in Teacher Education*
- WestCAST 2003 Conference Proceedings: *Re-Framing Teacher Education: The Changing Landscape*
- Faculty profiles
- Course Outlines

### 2.1 University calendar

The university calendar provides all official program and policy information relative to procedures, timelines, course descriptions and admission information. It is updated regularly by the institution to reflect any updates or changes in policy, program (outcomes and admissions procedures). As information from the calendar is currently available online, the information review was completed over the period of the research. Specific information was analyzed relating to the teacher education program. During this review, I noted course descriptions, policy information, and details related to the criteria and course requirements. Mainly, the university calendar was an official document used to reference official program information.

### 2.2 Field Experience Handbook

The *field experience handbook* is a guide published and edited by the Faculty of Education's *Undergraduate Student Services* office. This office administers all undergraduate program admissions, transfer credits, program information, field experiences, and student counseling support, and graduation applications for the Faculty of Education. The field experience handbook includes: statements of philosophy, policy guidelines (objectives and timelines; roles and responsibilities; activities and evaluation). The handbook is provided to all participants in the field experience and is the formal document that outlines all activities and information relative to the practicum. It offers significant insight on the value of the field experience:

> In school settings, you have the opportunity to participate in a wide array of educational activities and to begin to understand the diverse responsibilities of being a teacher. You have opportunities to observe a variety of diverse situations, teaching practices, students interacting with teachers and each other, observing and engaging

> in professional work and professional conversations. (*Field Experience Handbook*, p. 16)

A significant section of the document mentions the way reflective practice can occur during a field experience. The strategies mentioned are described further in this section. However, it is important to showcase excerpts from the handbook introduction that outline the attention given to support critical thinking for reflective teaching. In the following, I have identified a few key statements in this regard:

> Field Experiences are integral to learning about teaching and becoming a teacher. They provide a context needed to enable Student Teachers to make connections between theory and practice.
>
> In school settings, Student Teachers should have the opportunity to participate in a wide array of educational activities ... interacting with teachers and each other, observing and engaging in professional work and professional conversations... with Mentor Teachers and to think about the significance of these events for future practice.
>
> An important purpose of Field Experiences is to develop an understanding of the world of students and teachers in educational settings. As prospective teachers, Student Teachers are encouraged to inquire into what it is like being a student in a school, what it is like to be a teacher in different grades, subjects, and educational contexts, and what pedagogy and curriculum look like in practice.
>
> During Field Experiences, Student Teachers might ask questions ... thus bring life and challenge to learning to teach. Questions and difficulties that arise in the field become possibilities not just for observation, but experiences to exercise sound pedagogic judgment – taking responsibility for thinking about and practicing decisions that make learning and teaching meaningful and possible.
>
> 2002 Field experience handbook

### 2.3 1989 Task Force Report: Exploring and Mapping the Future: A Focus on Priority Issues

This report was the primary policy document found that outlined a focused 'reflection-in-action' orientation for the existing teacher education program. The theoretical framework for this approach was derived from the research of Schön (1983, 1987); van Manen (1977); and Zeichner (1987). Based on the findings and recommendations of the task force, the Faculty of Education gradually moved away from a traditional apprenticeship approach (Melnychuk, 2001) towards a model that supported reflective practice during the 1990s. 'Reflection-in-action' was the context for teachers (and other professionals) to develop their understanding of knowledge and theory in practice. The bridging of theory and practice — termed praxis — was then identified to merge course based content with the field experience. This happens not only by the action *of* reflection, but also by action *and* reflection, both during and after practice.

This task force report essentially served as a Faculty of Education position paper and reflected trends in educational research as well as the general research agenda for the faculty at that time. What is clearly stated in the paper is that the proposed 'Reflective Practitioner" model is really a hybrid of the 'Concerns-Based' model and the 'Critically Reflective' approach. These perspectives for teacher education were both valued and critically examined:

> Both models have important implications for the design and sequencing of teacher education programs. The *Concerns Based* model helps to explain some of the frustration that both teachers and students sometimes feel with current programs that do not take into consideration the learner's stages of professional development. Its inherent shortcoming is that is has the potential to be merely a survival-oriented program designed to help students to be more comfortable with a context that is taken for granted. The *Critically Reflective* model can also prove futile if students' concerns have not been attended to. Teachers in training must have sufficient experience working in classrooms to resolve the lower levels of concern before they are fully able to assimilate theory and deal with the concerns of the true professional (p. 23).

This report (and the work of this task force) was initiated by the Faculty of Education's interest to respond to concerns and from findings in related research (often conducted by members of the institution). The report authors noted:

> Many of our current students and graduates viewed their teacher education program as being fragmented into discrete courses in curriculum and instruction, education psychology, foundations of education, and administration. Participants frequently pointed to the wide gap between the content of education courses and the daily requirements of teacher. (p.25)

*Reflection 6: On teacher education policy*

*It was important for me to identify this report as it was the baseline for how the concept of reflective practice would be implemented throughout the program. It made me wonder if reflective practice is identified as a process-based solution to some of the issues mentioned by participants in interviews. This gave me an ideal to determine how the context for reflection in physical education may or may not have been similar to other subject areas. While this differentiation was not an initial outcome for the study, it would indeed be possible to state that the PETE program (and physical education in general) has unique needs, values, and interests that distinguish it in teacher preparation from other subjects.*

*It was interesting to me to look back as a graduate of the teacher education program, at a time when I was first exposed to reflective practice strategies – such as focus group discussions and reflective logs. When reviewing this document, I now had a much better sense of the dichotomy between technical rationality/behaviorism and the critical alternative, constructivism. I was able to link the former with the apprenticeship of craft knowledge and developing the skills to teach (learning to teach). I could now compare this to the idea of the 'teaching to learn'. From this I have extended my own professional development in education from a teacher to a consultant (and facilitator of teachers' learning and development), and on to Schön's concept of a 'reflective practitioner' and a lifelong learner.*

## 2.4 Western Canadian Association for Student Teaching Conference Proceedings

A remarkable component of the documents researched was the examination of the conference proceedings of the Western Canadian Association for Student Teaching (WestCAST) held at the University of Alberta in 1992 and in 2003. This teacher education conference is considered a representative forum for teacher preparation research and incorporates the participation of all members of the education community, including: researchers, professionals, pre-service teachers and graduate students. The themes of the conference note the importance given to on-going reform in teacher education.

### 2.4.1 WestCAST 1992: Crossroads and Horizons in Teacher Education

The 1992 conference included a review of reflective practice in teacher education by keynote speaker Ken Zeichner, whose teacher development research made him a leader in inquiry-based teacher education. Zeichner expressed a concern for obstacles that exist in teacher education programs; he confirmed that the implementation of a 'reflective practitioner' model may be very diverse, based on reflection's purpose:

> Despite recent efforts to help student teachers become more 'reflective' about their teaching during the practicum, the ways in which the terms reflection, reflective teaching, and the reflective practitioner have come to be used in many North American teacher education programs have done very little to foster genuine teacher development.
>
> (1992, p.3)

The conference proceedings represent an important archive for the 'reflective practice' teacher education movement. While the keynote presentation was a fascinating read, two research articles drew my particular attention. First was a survey of teacher educators' perspective on reflective teaching:

2.4.1a Hess, G.C. & R.H. Short. *The Reflective Teaching Model: What does the term 'reflective teaching' mean?*

This paper reports on an inventory of faculty members' impressions and interpretations of reflective practice. By clustering questions relating to a number of inquiry-based instructional strategies, this survey helped teacher education instructors to identify their own philosophical approaches and related how these linked to particular curricular experiences being offered. Results integrated concerns of teacher educators and preservice teachers as to whether a reflective model was appropriate. The study noted that the majority of faculty members supported a reflective teaching model. A caveat was tagged however: unless one is clear in formulating a purpose for reflective teaching strategies, these in themselves are not a panacea for improving the quality of teacher development.

*Reflection 7: On reflection in teacher education*

> *It was interesting to know that if I compared some interview questions posed to teacher educators in this research and in my own, I was able to better understand how the concept of reflective practice was being implemented in the delivery of courses. What was found at that time was very supportive of theory, with lots of musings about how to implement in practical terms. I don't think things are so different now, except perhaps that the momentum of reflective practice has slowed and perhaps been replaced by other concepts 'de rigueur' today. These may include the concept of mentoring, professional learning communities, the promotion of narrative methods, and the identification of outcome-based competencies for teachers and students.*

The second study in my review was the only sample found of physical education research:

2.4.1b Fishburne, G. *Elementary education student teachers' practicum experiences.*

In this paper, Fishburne identified that the quality of teacher education experiences, particularly during the elementary generalist's practicum, were dependent on the supervisory and modeling role of the cooperating teacher. Fishburne developed a questionnaire to determine whether students received 'suitable' opportunities to gain practical teaching experience. He was also interested in determining the congruence between this term and their course work. Results indicated 'a dismal picture' in elementary physical education (p.122). Two significant conclusions remain concerns to this day: 1) there are limited opportunities for elementary stream teacher education students to observe and to learn to teach 'quality' physical education; 2) ensuring the general competency of teachers involved in the teacher education program is essential:

> The picture painted by the results of this survey is extremely bleak. It is incumbent upon teacher educators to change the experiences students encounter on practicum placements to ensure the desired congruency between course work and practicum, in the form of role model teaching examples, is available to all students who undertake practicum experiences as part of their teacher education program (p.123).

*Reflection 8: On research in PETE*

> *The findings of the Fishburne study confirmed my observations of some student teachers during my term as university facilitator. Educators and pre-service teachers echoed similar concerns during the focus group interviews. I am worried when I discover that many concerns expressed more than a decade ago continue to be raised. I also wonder whether these issues may be controlled by the PETE program (and by program delivery methods and strategies) or are simply the result of a teacher education community that may, in fact, have outgrown itself. By this I mean that if the access to quality cooperating teachers is limited, perhaps fewer student teachers should access the PETE program.*

### 2.4.2 WestCAST 2003: Re-Framing Teacher Education: The Changing Landscape

As a presenter in the 2003 WestCAST Conference, it seemed to me that the interest in reflective practice remains strong in teacher education. One specific study was significant to me:

#### 2.4.2a Bariteau, D. *Professional-year seminar in a B.Ed. program: Reflection as a misplaced frenzy*

Bariteau shared her experience about the implementation of alternative strategies to promote reflective practice, including the 'professional seminar'. The concept of weekly one-hour seminars did draw my attention for I too believed it would be a great bridge between course work and school experiences. Sadly, Bariteau found the experience not to be successful. She described how difficult it can be to engage student teachers in reflection on practice. Bariteau noted the reality is that most student teachers are survivors who can get by with the guidance of cooperating teachers, a certain level of personality, good coping skills, and hard work.

I believe that the results of this presentation came from a real effort on the author's part to be engaging with her students. She found that without considerable teaching background and / or a sincere interest in developing inquiry strategies, many student teachers' concerns are based on craft learning to deliver the material and manage their class. Other than that, reflective practice may be a process for learning to teach; developing reflective practitioners cannot be the outcome for teacher education programs. The professional development of teachers is in many ways 'controlled' by the opportunities availed to them by their own school jurisdiction, and by teachers' own engagement in lifelong learning.

*Reflection 9: More on reflection in PETE*

*What discouraged me was the lack of research presented in the pedagogy of physical education. While the enrolment of teacher education students in PETE remains consistently high, the research community is small. Teacher educators who wish to coordinate and collaborate with other persons in the PE community to engage in service or action research are stretched to the maximum. Also, there appears to be a limited interest in bridging the gap between research faculty and teacher practitioners. The interest in practical alternatives (ie. action research) may be the direction to take.*

*Through my teaching career and in my graduate studies, I have become so immersed in PETE research and recognize the need to engage future and in-service teachers in reflective strategies. However, I wonder if this perspective is comparable to the mainstream view of PE teachers? I believe it may well be that the excellent teachers in our schools are engaging in inquiry – about their teaching and for student learning. They have great classes, coach, organize intramural and school-wide events, and still think 'outside the box' to share with their own students the concept of active living and lifelong learning.*

### 2.5 Faculty profiles

The university examined in this study has one of the largest teacher preparation programs in Canada and the Faculty of Education boasts a number of professors who are internationally known for their teaching and research. In particular, several faculty members have specific interests in the promotion of curriculum inquiry, qualitative methods and narrative approaches to research. Topics appearing in teacher education faculty profiles include concepts such as: lived experience, action research, developing teacher identity, and curriculum theory.

The emphasis on inquiry is a common focus leading to the development of teachers (and learners); this is expected to create effective teachers who are in their own ways 'reflective practitioners'. I found, through my investigations into the implementation and research of reflective practice in this teacher education program, that efforts to reform the teacher education program have been influenced by the interest to engage students and teacher educators in reflection and narrative. Current faculty (Carson, 1997; Sumara, 2002) have realized that the current program structure has "an emphasis on imparting teaching techniques toward encouraging student teachers to reflect on their own admittedly limited teaching practices" (Carson, p. 77).

Curriculum researchers are lobbyists for models of content knowledge, teaching methods, and theoretical perspective. While many teacher education programs distinguish specific program areas in these dimensions, the technocracy that has moved professional development of teachers has become teacher 'training' with fixed regulations on the apprenticeship of students. An alternative to this approach is needed!

By reflecting, pre-service teachers would be able to make meaning of their personal and learned theories, develop their personal identity and instructional style. Having an opportunity of realizing a philosophy for teaching physical education may be a process that takes more than a single term in the subject area. Teacher educators may advance ideas on reflective practice in a particular context, relating curricular knowledge with personal and professional development.

## 2.6 Course Outlines

Document collection and analysis included reviewing samples of course outlines from the past several years (1994-2002). Outlines sampled were syllabi for the elementary and secondary education streams from both the Physical Education minor (EDEL 321; EDSE 347), major (EDSE 447/448 [formerly EDSEC 349/350]) curriculum / instruction courses, and from the current course equivalent at *Saint Jean* (CUME 326). The outlines were examined in detail. They provided significant information as to the variety of activities, types of assessments and general expectations for the participants in the course. Generally, these outlines followed a basic format and include similar descriptions of course content and information related to the following:

- Course overview – scope, focus and objectives
- Class Schedule and Learning Environments – including off-campus activities
- Evaluation and assessments / assignments
- Required / recommended textbooks and resource materials
- Expectations
- University policy specific to attendance, plagiarism, etc...
- Fee structure

Taken from the early 1990s, some previous course outlines listed the following program outcomes: (1) learning to become a school PE teacher and (2) providing opportunities for students to develop a professional teacher identity. More recent course offerings included the following objectives (2003 Course Outline):

- Understanding the needs of the learner;
- Planning for quality learning experiences; and
- Developing a professional identity

Listed outcomes are more generic across most subject areas. Along with listed knowledge, skills, and attitudes promoted by the provincial teaching association, (see Appendix E). The message to pre-service teachers is that they experience recognized activities to develop the skills needed for teaching in Alberta. Alberta Education requires that teachers who hold interim certification have the knowledge, skills, and attributes (KSAs) needed to achieve the Quality Teaching Standard early in their careers. The Minister expects that holders of interim certification will focus their professional development on honing and enhancing the KSAs acquired in their teacher preparation programs. These KSAs are addressed continuously throughout the Faculty of Education's teacher preparation program. Among the competencies listed, teachers are reminded of the need to assess their teaching and to be actively engaged in their professional development and community of practice: "Teachers should use the interim KSAs to guide their teaching, reflect on their practice, and direct their professional development in collaboration with their supervisors and evaluators".

In physical education, the physical education community has identified more specific outcomes for programs and for physical educators. In Canada, the Canadian Association for Health, Physical Education, Recreation and Dance (CAHPERD) and CCUPEKA (Canadian Council of University Physical Education and Kinesiology Administrators) cooperate to continuously redefine the competency-based outcomes for the graduates of PETE programs in order to meet the practical demands of the provincial education systems. Specific to the pedagogy of physical education teaching, the following competencies have been agreed upon by a majority of Canadian institutions to be essential for graduates of PETE programs (CCUPEKA, 2002):

The successful graduate of PETE programs:

- plans, manages, present and develops the content of instruction.
- identifies curricular goals.
- designs and implements progressive teaching strategies based on developmental needs and safe instruction.

- designs and implements learning experiences that are safe, developmentally appropriate and socially relevant.
- develops and applies pedagogical strategies associated with the promotion of healthy, active living.
- designs and implements learning strategies causing change in physical activity and health behavior.
- relates learning environment to knowledge acquisition.
- promotes self-regulatory learning.
- uses motivational strategies to promote life-long participation in physical activity.
- develops communication strategies for promotion of physical education activities with students, parents/guardians, school administrators, colleagues and the larger community.
- promotes the use of new technologies, e.g., computers, network, multimedia.

(CCUPEKA, p. 8)

In relation to **reflective teaching for learning**, the PETE graduate:

- uses formal and informal assessment techniques.
- teaches self-assessment strategies.
- teaches peer assessment strategies.
- evaluates methods of assessment.
- researches and critically reflects on practices and outcomes of the program.
- evaluates the teaching-learning process and implements adjustments in order to enhance program effectiveness.
- engages in self-reflection on teaching effectiveness.

As for **professional development**, the PETE graduate:

- promotes the professional development of self and others through membership in national and provincial organizations.
- contributes to the profession through action research, curriculum renewal, and participation in professional conferences, in-services and continuing education.
- develops partnerships that enhance the physical / health education program.

(CCUPEKA, pp. 8-9)

In the United States, the *National Association for Sport and Physical Education* (NASPE) teacher standards (Appendix A) promote 'an integrated approach to PETE with a focus on the performance and ability of teacher candidates to implement quality teaching of curriculum' (NASPE, 2001). Wayda & Lund (2005) remind us that the assessment strategies used in teacher education programs should rely on the implementation of performance as well as identify the dispositions of future teachers related to professionalism, learning and integrity.

Outcomes serve as performance or achievement targets for the instructor and the student. Outcomes are the product of the learning experiences provided during the course and assessment should be structured with this in mind. By examining some of the outlines, themes identified answer the fundamental question for curriculum and instruction: *What do teachers need to know and be able to do?*

The above question is taken from research by Darling-Hammond (1997), who promoted a 12-point assessment checklist on teacher quality. While all of these outcomes are inter-connected, reflection is promoted in two key areas: (1) the assessment of effective teaching practices; and (2) for continued professional growth.

## 2.7 Class Schedule

The physical education methods courses during the Advanced Professional Term provided more time and therefore more depth of content knowledge. In an intensive six-week program, students participated daily in a variety of activities – committing about 15 hours per week in-class time to learning to teach experiences. I would say the peer group developed a collaborative approach to learning, and interactions between peers were collegial in nature. As such, most pre-service teachers were focused on getting together to learn and gather as much information about teaching PE as possible prior to their field experience. Students were encouraged by their instructors to plan time effectively; to find useful ways to compile unit and lesson plans; to read and become familiar with professional physical education periodicals and website links that could support them in the future. Students were also advised of alternative opportunities for professional development on-campus and in the local school environment.

## 2.8 Learning Environments

The province of Alberta's *K-12 Physical Education* program of studies promotes the theme 'Creating a Desire to Participate' by teaching active living in a variety of traditional and alternative spaces. Due to the nature of teaching physical education, learning experiences are needed in many different settings. Exposure to these areas and to the logistics of planning field trips, including risk management and safety guidelines, was observed. For example, one visit to an outdoor leadership school provide several teaching moments for pre-service teachers. The focus that day was on collaborative team initiatives; it was successful in bringing members of the group closer together while at the same time discovering different outdoor activities.

*Reflection 10: On PETE learning opportunities*

> *Access to a variety of learning locales is important in PETE. I would be encouraged in the future if the student teachers continue to gain more experience in alternative environments. Options include providing student choice in teaching comparable activities that may be geared more specifically to their interests.*
>
> *My observation was limited but I did recognize that learning environments have a significant impact on the framework for learning to teach. In this case I'm unclear how the 'reflective' model may be enhanced given that there are so many factors to consider.*

## 2.9 Assignments

Expectations for PETE participants have regularly included the completion of a variety of tasks and of 'learning products'. Activities observed during a physical education methods course and/or identified throughout the program documents and course outlines included:

- Classroom lectures and activities;
- Personal reflection and recollections;
- Practical teaching and planning;
- Student-led workshops;
- Field visits and observations;
- Creative writing;
- Research analysis and article review;
- Panel and group discussions;
- Professional workshops;
- Film/video analysis

Activities were selected by instructors and chosen for the alignment of course outcomes, the availability of facilities, the logistics of a condensed course schedule, and the applicability of the endeavour. More detailed information and criteria regarding assignments – found in the course outlines - indicate the purpose or value of a particular learning experience.

*Reflection 11:*

> *I found this to be very interesting review. Rather than provide a synthesis of the descriptions, I have chosen to highlight how program documents are important sources of information and evidence for identifying the program's approach to learning with reflective practice. By examining the detailed expectations, I was better able to develop an understanding of the value of specific experiences in the program. I also had a much better appreciation for the selection of some activities over others. Maybe the more significant conclusions I made were in realizing that by exposing student teachers to a variety of experiences, they may also identify the need to do the same when they teach.*

Course outlines included some description for the following assignments:

| **Assignment** | **Description** |
|---|---|
| **Reflective Journal** | Maintain a daily written self-reflective journal the purpose of which is to:<br>a) increase your awareness of what you are learning;<br>b) develop a better understanding of your beliefs, values and principles;<br>c) demonstrate your growth in the ability to self-evaluate and develop a personal philosophy about teaching.<br>(Winter 1998) |
| | The purpose of this assignment is to reflect on selected issues and activities brought up in the class. These reflections are to be written in the first person and are a means for you to develop a dialogue with yourself. The following questions may facilitate the reflective writing process:<br>• How does this idea make sense to you?<br>• How are your feelings / experiences similar to or different from those expressed by others?<br>• What are your beliefs and what are the potential consequences of these in relation to teaching?<br>(Fall 2000) |

| | |
|---|---|
| **Peer Teaching, self-analysis** | This is a reflective process based on the peer teaching episodes. You are expected to present an organized document which includes "teaching materials" such as lesson plans used in peer teaching, feedback from 'critical friends', instructors' comments, and a self-evaluation checklist.<br>Your reflective efforts should not simply focus on 'how you performed' but rather on transforming the 'raw experience' into a context that is both 'personally meaningful and conceptually coherent.<br>(Fall 2002) |
| **Position Paper** | Planning to teach is analogous to writing music – the written plan that musicians follow. Without the written music a symphony orchestra would be reduced to nothing more than discordant noise having no connected purpose. Based on this analogy, develop a position paper on the role of planning in physical education.<br>(Winter 1998) |

2.10 Textbooks and resource materials

Since 2001, the required resource has been the *Alberta K-12 Guide to Implementation and Program of Studies*. Associated articles and materials have also been presented as required reading for participants during class discussions and for written journal reflections and assignments. It is of interest to note from early outlines other required or recommended texts as primary resources (Appendix F).

The analysis of these texts may provide an indication of the possible orientation of the program, or at least a preference on the part of the teacher educator delivering the course. This analysis extends beyond the scope for this study however and is noted simply for consideration since a methods course text is a foundational resource that often is the beginning of a professional library. For instance, it is likely that those resources that come from authors known to have focused their research and teaching on teacher effectiveness (ie. Siedentop, 1991; Randall, 1992; Vickers, 1990) provide an approach that promotes the technical skills required to teach. On the other hand, books from authors such as Hellison

(1991), Rink (1992) and those known to have a critical research focus (ie. Tinning, 1987) will be very supportive of promoting decision-making, choice and student empowerment.

## 2.11 Student Expectations

It was noted that student engagement would be essential to active participation, to developing empowerment for teaching and to succeed not only in the course but in future teaching:

> "Students are also expected to create a positive teaching/learning environment when teaching. Following their opportunities to teach, students will have the opportunity to reflect on their teaching, to analyze, interpret, evaluate and make recommendations for change.
> Special attention will be given to building a caring, collaborative, and supportive class environment which focuses on inclusion, process, active participation, commitment to personal growth, respect, critical reflection and dialogue leading to action and change."
>
> (EDSE 347 Course Outline, Fall 2001)

*Reflection 12:*

*As the intense six-week term went on, there appeared to be a number of student teachers who showed signs of fatigue and saturation even prior to the field experience. Feeling overwhelmed with the stressful demands of being a student may not be unusual; add other stressors and the situation can become unnerving. For example, many students worked full time during the semester (although this was discouraged by the teacher educators). Other students were parents of young children or expecting. Still others were going through a period of decision and discovery – wondering if teaching was really what they wanted to do in the future.*

## Section III: Summary of reflective strategies

Section III provides the summary of reflective strategies identified within the existing program during the time of the study. Findings are based on observational data and perspectives shared in interview and focus group discussion. In a detailed fashion, each approach is addressed within the 'Reflective Practitioner' Model of this institution. Personal reflections are included to demonstrate how the strategies are founded in research and referred to in other contexts.

### 3.1 Personal history method: Initial personal examination and discourse

Understanding one's story is recommended as the initial phase in teacher education. Britzman (1991) identified autobiography as the first of three chronologies to be experienced – the others being the integrated course work and the field experience. Others echo Britzman's model of overlapping influences on pre-service teachers. In PETE professional workshops, Woods & Sykes (1993) have also encouraged physical education teachers at any point in their career to continue personal history analysis throughout their career, " to examine and express our present reality and experience, our conduct within that reality and experience, and what we can do "to become" as teachers.

The benefits and outcomes of engaging this way may:

- Offer opportunities for sharing of experiences that may or may not have common ground.
- Create an atmosphere of mutual understanding and trust... fundamental to the process of reflection and critique.
- Permit "windows" through which participants can view and critique the profession.
- Encourage dialogue concerning the profession, its history, trends and issues.

- Permit participants a public "voice", and encourage participants to defend, rationalize, maintain or alter personal stances, both publicly and privately."

By comparison, in another Canadian university PETE program, Anderson (1993, 1994, 1997, 2005) described the use of personal history method early in PETE as the premise for three stages by which his student teachers progress through in their program. These are not independent phases in PETE but symbolize the constructive processes in learning how to teach from a perspective of critical reflection. Anderson supports a constructivist approach focused on student-centered learning that bridges theory and practice. Anderson (1994) recommends that teacher educators can help prospective teachers understand the connections between theory and practice by:

- Studying the conceptual and procedural foundations of research;
- Encouraging student teachers to probe experienced teachers' thinking by asking them to think aloud as they plan and reflect on their teaching
- Reading biographies and narratives about teaching and discuss various sources of knowledge to make judgments about educational issues;
- Studying cases of teaching episodes (p. 17)

Through course-based activities in his PETE program, Anderson (1997) presents them as the student outcomes: "discourses, gymnasium activities and reflective readings are presented to student teachers to:

(a) raise doubts about their initial theories about the teaching and learning process;

(b) encourage flexible and strategic thinking about what and how to teach physical education; and

(c) promote critical thinking about the processes and knowledge bases that inform effective practice." (p.71).

Anderson (1997) supports the need for teachers to understand the dialogue within themselves. "By exploring experiences from their past, pre-service PE teachers recall and retell their stories and begin to develop their personal practical knowledge about teaching that is sensitive to the meaning of interpersonal relationships. This cognition improves comprehension when student teachers tackle four major concerns in presenting a constructivist perspective to teaching physical education (2005, p.5):

- Why certain techniques work for some pupils and not for others;
- How a teacher's understanding of subject matter, learners, and learning is expressed in the way physical education is taught;
- How ideas and effectives practices evolve and continue to evolve within communities of learners (scholars and practitioners); and
- How responsible methods of teaching relate to high priority outcomes.

### 3.2 Sample learning exercise: an introduction to the life history approach

This activity serves as a gateway to teaching physical education (Sparkes & Templin, 1992; Sparkes, 1993; Sparkes, 2002); a number of Canadian PETE programs "involve revisiting childhood and schooling experiences to allow students to examine their beliefs and values about teaching" (Melnychuk, 2001). At a point very early in the methods course, pre-service teachers were provided a very real learning opportunity that focused less on content and more on themselves - examining their personal biography as a factor in their developing a professional identity as a physical education teacher. This activity provides a unique perspective to view the conditions that may affect their workplace in the future (Stroot & Williamson, 1993). The 'curriculum of one' becomes transposed onto the knowledge learned about teaching and subject matter content.

This sample introductory exercise is meant to enhance their reflective capacities, incorporating individual re-discovery and initial group discussion. This was the first chance for the PETE cohort to examine how their schooling and personal environment may have greatly affected them – whether they had taken the time to realize that or not. The advantage of having this activity early in the teacher education program is that it may lay the foundation for reflection as a common thread throughout the course. Students come to be at ease with peer sharing and realizing that their own experience is only one to acknowledge and develop a professional identity. Whether activities occur in course based or school based settings, these learning experiences engage student teachers in the defining and forming of professional identity. By also challenging students to develop an orientation to professional development as a career journey, reflection becomes an activity that teachers are expected to undertake on a regular basis.

It is important then for all participants to understand that any single perspective of experience is influenced by social, political, and environmental factors. Students wonder and discover why events in their PE experience may have occurred and begin to notice, to contemplate. Reflection may be a chance to 'pull together' theory with practical ideas, to develop skills, to facilitate an interactive understanding of one's role as teacher Sawatzky (1999, p. 2).

Anderson noted the process of learning to teach must then involve opportunities to re-examine assumptions of the teaching and learning process. By seeing other voices and perspectives, beginning teachers are confronted with the possibility that existing beliefs may not represent valid and reliable ways to make judgments about the adequacy of ideas presented in class and by others (Anderson, 1997, p.73).

During their integrated program, PETE students received advice and direction from many different sources: course instructors, cooperating teachers, university facilitators, etc... From hearing different opinions, reading and discovering different orientations to teaching, receiving feedback, the juxtaposition of these multiple forms of knowledge ends up leaving the pre-service teacher confused. Throughout, the analysis of these received messages and the synthesis of new viewpoints introduces the concept of negotiation.

In examining the development of identity in teaching physical education, Armour and Jones (1998) found that the process of negotiating received knowledge is how a teacher begins to establish his or her own personal philosophies and professional practices. Negotiating becomes a common act for the teacher as it highlights the challenges of decision making and hearing multiple perspectives. It is accepted not only as a purposeful skill but also an act of recognition that may have personal, social and political foundations.

In many ways, the examination of personal history discards the idea that the best learning comes from following the recipe for the desired product (effective teacher). Instead, personal reflection supports a process of learning along the way, accepting that there are many paths to take to reach one's target. The process-approach to learning is not always welcomed by student teachers, who want to 'get the goods' and who may become discouraged by their initial narrow-mindedness. Placek et al. (1995) recognized:

> The problem is not in the lack of alternative conceptions, but in getting recruits to see difficulties and inconsistencies in their current beliefs about physical education, to become dissatisfied with reproducing their past experience, and thus search for replacement conceptions.
>
> For teacher educators guiding recruits to question their past experience, this is an unfamiliar and uncomfortable process, one that takes time from traditional program

> coverage, one for which there is little practical guidance. A first step for teacher educators is to become aware of the connection between students' past experiences and their current deeply held beliefs about future work (p. 258)

3.3 Narrative analysis

Narrative analysis is presented as a reflective methodology that helps people interpret the meanings of life experiences (Oliver, 1998). Narrative inquiry has been promoted as reform by some teacher educators (Clandinin and Connelly, 2000, 1988; Sparkes, 2002, 1996, 1993) as a critical path - to challenge the instrumental or technical approach to teacher education that focuses on teaching: skill acquisition and method. Pedagogy as text (Gore, 1990) focuses on personal interpretation of situated learning. It takes many forms but has a purpose – for learning. Teacher educators of this program have used narrative reading and writing (presented in a variety of media) to promote to their students that analyzing what they read and are exposed to must be examined with a critical eye. Strategies may include: reading biographies, case studies, developing and interpreting metaphors and imagery, reflective writing, etcetera ... and several of which are covered in this chapter.

3.4 Dialogue and Group discussions

Various types of small and larger group discussions were regularly used during the course. A common observation was the use of the personal and partner reflection (e.g. THINK-PAIR-SHARE) method. Often, the activity was introduced as an opportunity to frame a question or an opinion about a particular situation. In this case, students were presented a theme or situation. Individually then with others students would develop different interpretations. Clearly the most intriguing part of discussions included the presentation of perspectives and the following dialogue. Another example observed was the role playing of 'hot topics and emergent issues', which may occur in a debate format or in the portrayal of a number of conversations that take place in a professional environment.

Role-playing, text or other media analysis are activities that promote student engagement in learning; "discussions require that each student be responsive, giving them the opportunity to reflect on the opinions of others and to relate their ideas" (Wilson & Williams, 2001). Knowles and Holt-Reynolds (1991) also recognized that role-playing in case studies or in peer presentations for pre-service teachers allows them to take on the perspective of teacher and learner. Teachers mentally role-play themselves as students in the classroom to determine whether or not they would like and learn from the activity they have chosen to present. Then they switch to themselves as a teacher conducting the lesson to determine whether or not they would be able to present it in a specific (preferred) way.

*Reflection 13:*

> *Teachers grow and gain insights about teaching by engaging in conversations. In peer discussions, students in teacher education programs learn about techniques for problem solving, classroom management etc... and exchange in sharing stories – about others and about themselves that others may take a broader view on what teaching and learning is about. These opportunities also develop another important teaching skill: asking the "right" questions.*

### 3.5 Case Method

The study of cases is common in professional preparation – particularly in such fields as medicine, law, etc... Case method in teacher education is promoted since "the *Carnegie Task Force on Teaching as a Profession* (1986) recommended that teaching cases, as a major focus of reform instruction illustrating a great variety of teaching problems, be developed. Cases may be presented in many forms including textual and alternative media sources (such as video) to help address the ambiguities of teaching and learning process. Cases in PETE may address other issues particular to teaching in physical education: advocacy and promotion of active living, socialization, gender, risk management, multicultural and diversity education, and classroom management.

Collier's et al. (1997) review of case method in PETE included various pedagogical strategies and alternative methods; regardless of the strategy used, 'a good case': (a) should be derived from actual teaching experiences, (b) be detailed, (c) be complex, (d) be substantive to foster multiple levels of discussion, analysis, and possible courses of action. In choosing to use this instructional learning experience, Shulman (1992) argued that a case "merits more serious consideration than a simple anecdote or vignette... and that poorly taught, there is no worse method" (in Collier et al., p. 203)

Bolt (1996) examined case discussion as an instrument in elementary PETE. He discovered that the PETE students exposed to this reflective strategy found it to be very effective, increasing their reflective levels (p. 104). For all students to benefit from case studies, observations indicate that analysis should include written and verbal products, and not be limited to classroom discussions where more vocal participants dominate conversations and other refrain from becoming engaged. It was also observed that any student's engagement is not dependent on their public participation but by their grasp of the situation and reflective approach to learning from it.

Cases are more powerful tools when developed by students (Wilson et al., 2001); they may be created in field notes and reflective logs during observational visits early in the integrated program. The benefit being that "the practice of using student teachers' reflective storying to generate case is a fresh concept that allows experiences and ideas to 'live on' from real life to a professional discussion" (p.49). Case writing about a critical event can be the most important self examination, even more so than a videotape played back as there may be a re-creation where teachers can see themselves in new and different ways" (Wasserman,1993, p. 195).

The use of authentic cases was seen to be very appropriate learning during the field experience in three distinct situations: (1) in field experiences during one-on-one conferences; (2) in school practicum cohort meetings; and (3) during 'callback' gatherings of all pre-service teachers at the mid-point and conclusion of the field experience. Students shared experiences that may have been challenging or stressful. Those who shared were quite interested to find out if other students would have acted (or reacted) as they had in the given situation. It was also observed that rehearsing cases from different points of views provided student teachers with a variety of possible solutions.

Case method is powerful for promoting reflection. In fact, the depth of reflexivity may be greatest when using such a technique. There are considerations though: first, case method depends on the experience of the instruction and their ability to facilitate discussions appropriately. Second, the engagement of student teachers is essential to them gaining from the experiences reviewed. The potential for case method is noted by Collier et al. (1997), "case discussions could be a forum where we begin to understand how the sub-disciplines of physical education and teacher education connect. Case method may provide opportunities for groups (or school-based cohorts) of pre-service teachers to collaboratively analyze cases from different areas of specialization" (p.209). As Shulman (1992) states:

> In the teacher education literature, we often read arguments for case methods predicated on the goal of teaching teachers to be more reflective... Because of their

> complexity and multiple layers, cases lend themselves to programs that value such a view of the purposes of teacher education (p. 8).

Finally, Wright (1996) also commented that case method may best serve our teacher education programs that are attempting to promote more reflection in students that focuses on practical realities (p.190).

### 3.6 Metaphors

As a comparative technique in descriptive language analysis, metaphors have been linked to the use of imagery in art form and in communication to "enable researchers to explore a few key features of phenomenon" (Day et al., 1990). In general conversation, although distinct, metaphors are used in explanations and are often confused with analogies and similes. Regardless, their use and purpose is to compare, paraphrase and describe a particular item or event.

A commonly used metaphor to describe teacher education is that of an 'apprenticeship' (Schempp, 1989; Lortie, 1975). This describes one perspective on the way teachers should learn to teach through the development of teaching skills. The use of metaphors in learning about reflective practice has also been used in PETE (Pare, 1993). Advocates support this approach (Carlson, 2001; Jewett et al. 1995) because "it can stimulate PETE students to think differently, to clarify vague concepts, to seek alternative ways of designing their curricula, and to help preservice teachers identify personal beliefs of which they may not have been aware (Carlson, p. 49). Examples of metaphors for reflective practice as a tool for professional growth include that of a mirror (Perry et al., 2001); or a swiss-army knife (Lueke, 2003). When promoted and used in other reflective strategies, such as written logs or in situational role-play, metaphors were observed to allow the students to better grasp content and self-concept. Using metaphors extensively in teacher education, Hoban (2000) established:

> Some students used metaphors 'going on a hike' or 'the playground' to represent an optimal relationship between teaching and learning. Other metaphors included a game of baseball, launching a rocket into space, a building elevator, a ski lift, a circus, an orchestra, a cricket match, caving, building a house, a tree, a garden with a range of plants and a game of golf. The students also labeled these metaphors with key factors identified in their teaching learning profiles and described the relationships represented.

### 3.7 Learning in the Gym lab

The activities that seemed to engage the participants the most were the active sessions in a gymnasium or alternative location. In these classes, the students received and or presented a range of activities that could be taught during their practicum. The focus was to demonstrate a variety of teaching styles and situational cases for the group to become familiar with. In some cases, it was an eye-opener to new ideas or exposure to new and alternative units of instruction. For others, the workshops were flashbacks to their own PE experience, with the same issues and concerns identified by role-playing as teacher and student.

### 3.8 Teacher-led workshops

Anderson (1997) analyzed that presenting teaching styles (Mawer, 1999; Mosston & Ashworth, 1994) in a particular order improved students' constructivist understanding of 'teaching to learn'. As students become more familiar with various styles, they tended to be more open to experiment. For example, by beginning with a direct approach, Anderson's PETE class reviewed a style of teaching and classroom management that they were familiar with, could breakdown (demonstration, explanation, practice, feedback) and able to critique.

However, as they learned other styles, such as 'self-talk', this encouraged greater focus and monitoring of teacher and learner behaviours. Later, students could be exposed to a discovery approach promoting the attainment of specific concepts. Anderson is encouraged by guiding critical thinking at every step of the PETE course (during and post-activity). This may be done with questions and challenges that: "are opportunities to externalize the thinking that underlies each presentation, that is, the goals and values of a quality physical education program, beliefs about how children learn, theories about effective practice, learning and care, and the elements that constitute a responsible learning environment" (p. 79).

### 3.9 Peer-led workshops

Peer-teaching workshops provide a convenient way for the course instructor to have student teachers examine the many dimensions of the physical education curriculum program of study and practice their teaching skills with peers in regular PE settings. It involved researching appropriate knowledge bases, unit and lesson planning, instructional strategies and evaluation and assessment. By having the individuals or small groups leading the activity, student teachers shared both an enthusiasm for the opportunity to share what they knew as well as an anxiety from presenting to peers.

During the methods course and practicum, peer-coaching models (Jenkins, 1999) were seen to be "an overwhelmingly positive experience" (Melnychuk, 2001). The implementation of a cohort practicum model' depends on three conditions that foster critical reflection: 1) early exposure of a variety of reflective strategies; 2) an environment of supportive and engaged peers; and 3) multiple mentors to guide coaching themes and discussions (Jenkins, p. 217). I observed in group efforts the supportive, learning environment of peer coaching "that valued trust, openness, and mutual respect, allowing professional growth to occur" (Melnychuk, 2001).

Presenters had been encouraged to not only role play working with students but to also review and rehearse components of the lesson as a teacher – for teachers. This would most likely complement a professional learning workshop. On a regular basis, the teacher educators guided peers to share feedback with the presenting teacher-leaders. Most recognized this too was an important assessment of their teaching skills (including the planning and preparation for that activity). It was difficult for some to receive comments and constructive criticisms in a public manner. The feedback from these workshops would be most valuable for preservice teachers about to move to a school-based setting.

### 3.10 Professional teacher workshops

Workshops are regularly made available to physical education teachers and to generalists who may be new to the subject area. These workshops may be independently organized or part of a larger event, such as a conference or activity jamboree. My observations are that student teachers should regularly become involved in these events – for many reasons. First, they are able to receive more specific knowledge and expertise in some dimensions of teaching physical education that may be unique. Also, student teachers may witness how other PE professionals model their teaching skills and ideas. Most importantly perhaps is the feeling of connection that student teachers can get from attending this type of workshop. They also realize that teachers' development is on-going. Finally, for those seeking future employment, one cannot underestimate the value of networking. These professional workshops are a very good example of how the school community and the teacher preparation program can collaborate.

Other unique experiences well received by the participants included investigations into the 'real-world' of teaching physical education.

### 3.11 Guest speaker presentations

This learning experience is valuable not only for student but for educators. Whenever another perspective is offered, it has the potential to promote great dialogue and interest. It may be the catalyst for motivating students at a time prior to field experiences when the student teachers may be swamped in work or overwhelmed with the pre-term anxiety.

#### 3.11a Panel presentation and forum discussion.

During a 90-minute presentation, four members of the physical education community (recent PETE alumnus in first year teaching, experienced teacher, school based administrator, district personnel) spoke to preservice teachers about a variety of topics of interest to future teachers. It is very much worthwhile to plan to have various speakers addressing issues from different viewpoints. Many themes (e.g. the status of PE and active living opportunities, professional development, the hiring of elementary PE specialists; safety and risk management issues, etc...) were discussed to expose students to the context that they were about to be immersed in. Especially valuable were the insights provided to them by teachers sharing stories about what concerns they had or about what motivated them to continue in the profession. Also appreciated were comments made of administrators and young teachers who had recently graduated from the program.

### 3.12 School site visits

A common activity in teacher education, visiting school settings provide the 'true immersion experience'. In one case, a number of teachers in a particular high school are able to share different philosophies, teacher styles, issues and ideas with students. This observation occurs only in a limited way at this time due to the logistics involved. Students appeared to really 'open their eyes' to becoming a PE teacher once in a school environment. For this reason, other teacher education programs have used school-based settings as the framework for teacher development.

### 3.13 Research and Inquiry

Another activity that can be extremely valuable if well structured was a research-based assignment that required preservice teachers to select an issue or topic of their choice that they felt was important in their professional development in PE. The work initiated them to become familiar with professional resources and the process of critical thinking. They needed to summarize the topic in written format, make a presentation and / or to become familiar enough in the topic to lead a discussion. Students were encouraged to develop a deeper understanding of elements that may have been briefly discussed during other learning activities. Topics were quite interesting in that they challenged all participants to move beyond content knowledge of physical education and the curricular program of studies.

*Reflection 14:*

> *Activities that were noted to be least interesting to the PETE students were too content-oriented (ie. lectures) and reflective assignments. I think this has everything to do with the concept of active learning. If we don't model it in our university courses and preach that preservice teachers need to inspire their students, then perhaps the expectation of covering so much knowledge base in so little (or condensed) time is unrealistic. Other teacher development models may need to be examined that are currently used in other PETE programs.*

3.14 Reflective logs

Reflective assignments were difficult for some who didn't know how or who lacked motivation. Others engaged in studentship (Graber, 1989), writing not really from the heart but including prose and concepts they felt were 'what the reader (instructor) wanted to see'. This is evident when teacher educators review reflections and note very limited personal intuition. It also presents the debate as to whether reflections should be graded. In the *Handbook of Field Experiences*, the focus on reflection is underlined:

> A reflective approach to teaching involves active, persistent, and careful consideration of any belief or practice in the light of grounds that support it and the further consequences to which it leads. Reflective practice involves seeing alternate possibilities, understanding the consequences to which certain actions lead, and taking control over one's educational beliefs. Reflection in this sense involves a balance between "self" and "otherness" with the notion of growth as a teacher and being mindful that one's actions affect one's students. Reflective practice is required in self-evaluations for field experiences and in self-assessment checklists.
>
> (*Handbook of Field Experiences*, p. 25)

As stated in the interview, one participant said:

> **Frank**: I think the concept of reflective practice, as a whole, has some validity but… there has to be a way that we can integrate it and coordinate it within a program so that it's used effectively so that people understand its value."

Another subject remarked:

**Jill**: If it was something that I could do on my own, great. We (Jill and her mentor teacher) sat down for both my mid-point and my final reflection or my final evaluation and we looked through both of them and I was never being judged, I was never being told to do anything, it was just an amazing support I had. I've reflected for years and years through coaching and different things. I mean, I'll wake up in the middle of the night thinking about classes that I'd taught or thinking about the next class the next day so I'm always thinking ...

*Reflection 15: On reflective journals*

When I was enrolled in teacher education, reflections *were the integral base for grading in methods courses. Now, the approach to grading reflections is somewhat subdued. Participants and course instructors seem more open to the idea of reflection for its own purpose and not as a graded assignment. This attitude may reverse a trend of studentship where students simply write down what they believe the instructor wants to read.*

### 3.15 Planning

Students appeared to appreciate the value of planning activities (such as long range, unit and lesson planning). In an interview excerpt below, it is evident one student felt that planning is a fundamental teaching skill - one that depends on much practice:

**Wayne** **What kind of assignments or experiences did you really value during your teacher preparation? Either in your methods course or maybe beforehand, maybe during your Phys. Ed. experience.**

**Glen** I enjoyed our lesson planning assignment. I thought that was a good one because we had gone through the whole training program, the whole degree, and finally at the last had a chance to do things teacher do every day. This goes with first time that I got a taste of that. So I, you know, enjoyed that, just – it's the first time really at having a really close look at the curriculum as well. And that's why I kind of also have a little problems with the whole way that the program's set up is that you don't get the experience until the last, your last semester.

**Wayne** **So would you have liked to maybe do just more lesson planning or other**

**kinds of assignments? Practicing this planning aspect of teaching?**

**Glen** I don't know if I'd want to do planning the whole time, but it would definitely probably have been worthwhile to do some more planning and then, not just planning, but then applying what you've planned.

**Wayne** **And you can walk away from the program with, you know, a lot of sample 'recipes'.**

**Glen** I think just having more experience with planning and then doing. We only had basically one opportunity to do that in our methods course, where, you know, we did our lesson planning assignment and then we taught it for a whole class. That's one time. I think, possibly, it would have been even more beneficial to, you do maybe just like short, and ten or fifteen minute lessons and do a number of those. I'd probably complain about it at the time but I think it would probably be quite beneficial for us to just get more experience to find out what works and what doesn't. What do you need in your plans as a teacher? I know there are teachers that don't use any plans at all and they run fine classes. And there's other teachers who plan every little detail in their lessons, you know, I guess that's something that you learn over time as a teacher as well, but it would have been maybe beneficial for us to have a little bit more experience with that so once we get into the field we kind of have a better idea of what works for us and, you know, what works and doesn't work in the gymnasium.

*Reflection 16:*

> *Many students appeared to prefer preparing activities (including teaching styles and curriculum models) that were familiar to them. The perception, I believe, is that for activities / assignments that were to be graded, PETE students are less interested in taking risks. In other words, they were not prepared to 'try something different and new' and preferred to develop an activity at which they felt confident and skilled enough to teach.*

## Practicum based strategies and experiences

The teacher education program examined promotes praxis, the integration of theory and practice, as the simultaneous occurrence of action and reflection. Above, strategies used to promote inquiry and reflections were presented. During the field experience practicum, these and many additional ways are experienced:

> "The act of reflecting upon action can be taken up in various ways, such as: 1) maintaining a dialogue journal; 2) participating in electronic discussions (ie. list servs); 3) interacting in discussion groups; 4) developing conference presentations; 5) sharing in informal dialogues; 6) analyzing video episodes of teaching events; 7) critiquing peer teaching and describing events observed and the thoughts accompanying these events, dialogue between teachers is possible which enables fuller understandings and possibilities for transforming practices and structures."
>
> (*Handbook of Field Experiences*, p. 20)

In this study, participants identified three specific types of reflective exercises during the field experience: dialogue, personal written reflection, and the preparation of a professional teaching portfolio.

### 3.16 Dialogue with cooperating teacher/peer cohort

As university facilitator I was aware of regular conferencing and dialogue that occurred with the cooperating teacher and/or the peer cohort located on the school site. This pre-lesson and post-lesson dialogue (Coulon & Byra, 1997; McGullick & Coulon, 1998; Ussher, 2001) occurred in very structured or unstructured ways depending on the developing relationships with those involved in the practicum. This teacher education program does encourage self-analysis using a checklist format:

> "Complete the self-assessment checklist and/or your student teaching evaluation at regular intervals during each field experience, and discuss it with your Cooperating Teacher. This will suggest positive steps which can be taken to facilitate self-improvement."
>
> (*Field Experience Handbook 2002*, p.25)

Often, this self-check would include a follow-up discussion with the university facilitator and occasionally, school administrators. Melnychuk (2001) noted that the formal 'evaluative' nature of the relationship between a student teacher and mentor in a field experience may be compromised if a different setting is established. The University of Alberta used one example of this when it began to place several student teachers at the same school. As mentioned earlier in this section, Melnychuk (2001) outlined a significant benefit of this cohort model is that it would allow greater peer support to student teachers during the *Advanced Professional Term.*

### 3.17 Formal reflection logs

The formal submission of reflections occurred at the mid-point and conclusion of the field experience. While it may not be the diary that students would have compiled in the past, the reflections during the term are recorded formal indicators to the mentoring teacher, the supervisor and the university program coordinator that the field experience is progressing as per regulations. According to the field experience handbook (2002, pp. 27-28), it is important for pre-service teachers to follow a prescribed method:

> Reflective journals are used by Student Teachers to enable you to become thoughtful and effective teachers. Through written reflections, you can ask yourself why an event occurred or did not occur, then take steps to find solutions for improving your practice. As a reflective practitioner, you must take responsibility for solving your own difficulties in a professional manner. As you become reflective and begin to act on your reflections, you will become an educational leader and directly contribute to the development of effective and excellent educational experiences for students within the school community.

The handbook also identifies specific questions and themes to guide reflection during the field practicum.

### 3.18 Personal reflection

All subjects reported that informal reflection took place in many personal ways. It is difficult to determine but one can realize that the reflective practice depends on many factors, such as the individual's (a) worldview or philosophical orientation; (b) purpose for reflection; (c) depth and focus of reflection; (d) reflective strategy used; and (e) the context. Suffice to say, I noticed through various phases of the research, including the data analysis of the transcripts and conversations I experienced, many examples and different levels of reflection (or lack thereof). When reflection occurred was difficult to assess. However, the majority of pre-service teachers suggested their reflections took place at the conclusion of teaching practice.

### 3.19 Observation instruments

Participants did not mention any tools or assessment instruments (Banville and Rikard, 2001); Napper-Owen, 1999; Siedentop, 1991) that were provided or used to aid their development. Neither were these found in the field experience handbook to aid mentors in giving feedback. Two situations were noticed which would benefit from tools developed in related research: (1) for the student as observer – of expert teacher, or of peers and (2) for the mentor as observer of student.

Banville and Rikard (2001) noted that observation tools can be very practical and useful reflective strategies to promote effective teaching methods during a PETE program in courses and in the practicum experience:

> Reflection based on an objective analysis of one's teaching is crucial to becoming a consistently effective teacher. Observational tools focus on specific and important aspects of a class in order to make analysis more user-friendly. We recommend that

> pre-service, in-service and mentor teachers in physical education share the process of gathering data, analyzing outcomes, and reflecting on their practice. These investments of time and effort are sure to raise awareness of effective teaching practices. (p. 49)

## 3.20 Portfolios

Commonly used in the arts and design studies, only recently have education students and teachers been encouraged to record their professional development. Teacher associations and school districts are recommending portfolios for interested candidates for employment. The development of a professional portfolio was an on-going project that required students to reflect on their personal attributes that would make them a successful teacher and 'to get into a professional habit of collecting evidence to support your teaching career' (EDSE 447 Course outline, Fall 2000). As a work-in-progress, a portfolio showcases the professional journey of teaching physical education (Armour & Jones, 1998; Rink, 1998). This reflection includes: (1) identifying their personal strengths and weaknesses, (2) becoming familiar with standards and performance criteria referenced as necessary for becoming good teachers – more than knowledge, skills and attributes – and (3) the awareness that all life and school experiences allow one to develop a personal theory for teaching (Griffiths & Tann, 1992).

Research into the use of portfolios in PETE (Senne & Rikard, 2004) identifies that there is important value associated with the process. Currently, more PETE programs have incorporated portfolio preparation as an assessment instrument or even as a graduation requirement. Portfolios may include: (a) evidence and recognition of achievements; (b) observational and practicum assessments; (c) samples of planning or teaching units; (d) reflections and references; (e) statement of teaching philosophy. So, setting a portfolio has a particular value in the development of teachers long-term but for PETE students a more pragmatic value for the completion of the program and for improving their opportunities for future employment.

### 3.21 Callback

Formally, the students return on two different occasions to share experiences and resources. Once the field practicum begins, there exists only limited opportunities for student teachers to communicate with their peers. Among student participants in this study, it was noted that just isn't a lot of time available to connect. Nonetheless, a few colleagues found time to discuss practicum experiences on a weekly basis in an informal setting.

### 3.22 Film and Video analysis

The course instructor may utilize various methods to orient students to reflective practice. One example used is by examining the stereotype of a PE teacher through portrayals in various movies (McCullick et al., 2003). Students are able to make judgments comparing their views with the 'typical' characteristics of a physical educator.

Movies and other media can be used in other activities to enhance instruction – particular as it is a medium that is familiar and useful in school environments.

Video analysis is noted in the field experience handbook as a reflective strategy in the program handbook as well: .

> ... recording on tape (either video or audio) a segment of a teaching experience. The essential part of this procedure is one of playback and analysis of the recording. The playback can be done alone, with a supervisor, or with a peer team. When using this

> procedure, it is best to pre-plan the lesson and to decide on the particular teaching skill or technique that will be given primary focus.
>
> (2002 *Field experience handbook*, p. 25)

Video analysis was not observed during the research. It was however identified in a course outline as a possible way for student teachers to become aware of their teaching skills and to work on self-analysis and as an extension of the professional development workshop: "You are encouraged to videotape or audiotape your workshop and to analyze the product. Use examples from the recording to illustrate points you wish to make about the effectiveness of your teaching." (Course Outline, 2002)

In physical education and in coaching, it would appear in research about motor learning that video recording of performance and playback is well received by teachers and learners as a way to analyze and assess performance, while at the same time receiving feedback on action. Therefore, it is perhaps a reflective strategy, though underutilized, that deserves more time and attention.

*Reflection 17: On video analysis*

> *In my own experience I have used videotape recording both to review my teaching and my students' practice. In my teacher preparation, it was used in very short situations to practice different elements of a lesson. It also showed how to develop progressive discipline, to analyze the appropriate balance of teaching and learning time, and to recognize the behaviours and physical positioning used in teaching in a regular classroom and in alternative spaces. It is well recognized that visual analysis can be very important as a useful teaching and learning tool. Perhaps used in field experiences, video recording may also be hampered by the challenge of getting permission to use it in a school-learning environment. Also, the logistics of recording student-led workshops was not possible during the study period. Nevertheless, it would be encouraged as an alternative method during teacher preparation.*

### 3.23 Alternative technologies

Other ways of supporting educators, cooperating teachers, and preservice teachers are indeed something to look forward to in the future. Promoting a system or network for PETE students to connect is still informal – limited to perhaps telephone or email discussions (Coulun & Byra, 1995; Everhart & Turner, 1995; Sharpe, 1997; Wilkinson & Pennington, 2002). While in their practicum phase, students are school based; on campus it is a relatively quiet time though some students have also been observed to have irregular debriefings during the term to share experiences, ideas and resources. Current technologies such as email, web blogs, and electronic discussion forums are very much possible trends for the future of teacher supported professional learning communities. It may be though that in physical education – with the extracurricular coaching expectations – that teachers may or may not be likely to want to be on the computer any more than is required.

Reflective trends continue to shift as instructors attempt to make the teacher education programs vibrant and interesting. Perhaps what is unclear yet is the discrepancy between what is learned on-campus in courses compared to what cooperating teachers are providing. Also, it seems that there are differences in expectations and reflective engagement between the cooperating teacher and preservice teacher during the field experience. Perhaps because of this, teacher education programs need to revisit how orientations are conducted and also how the participants relate to each other, recognizing the guidelines set in the printed handbook.

### Summary on reflective teaching strategies

As is evident by the lengthy description in this section, students in the PETE program receive a variety of opportunities to develop many reflective teaching skills. From a broader view, the students move back and forth from a focus on 'learning to teach' (effective teaching) to one of 'teaching to learn' (constructivism). It is through experiencing reflective strategies that pre-service teachers are able to make sense of the content knowledge and assign value to the learning experiences they have received. These participants then are able to develop an understanding of teaching physical education (and of their own personal identity) so as to meet the objectives of the teacher education professional development program.

## Section IV: Pre-service teachers and reflection

In looking at pre-service teachers' dispositions, experience and engagement with reflective inquiry, this section addresses the following general research question:
What is the nature (focus and level) of the pre-service teachers' reflection on teaching?

In section I of this chapter, I presented a number of reflective teaching strategies that were observed and/or reported by the participants in the study. Formal and informal observation continued for the duration of the 2002-03 school year. During the observation period, I was cognizant of the program environment and factors influencing the implementation of a reflective practice framework.

Pre-service teachers were guided to reflect on teaching. This process occurred on an individual level as well as in group discussions. During the field experience this happened often with the mentoring teacher(s). While the intent of the study was not to quantify episodes of inquiry, it is fair to say that among the participants in the study, all engaged in different ways in reflection. Their views on the presentation and implementation of reflection noted that it had value in their development; some participants mentioned support for reflection but acknowledge that the format used is personal. Some didn't like written journals:

> **Frank**: "I'd already started some degree of reflective practice prior to starting my teacher education anyway, just because of my coaching background. Taking it to the step of writing out a journal I found laborious, especially initially".
>
> **Hal**: "we were first forced to reflect and that was in keeping a reflective journal and I didn't really care for it all that much".
>
> **Amin**: My best reflection is when you're talking to other people or just thinking about things on my own rather than writing it down. I think it was always impressed upon us that writing down your thoughts was the best way to reflect. And it may work for some but for others, it isn't.
>
> **Jill**: "... for reflective practice to work properly, it really has to come from the person, the individual. It can't be imposed on you, right? You can't be told to go to your room and think".

Throughout the methods course, activities were prepared to provide a holistic learning experience. In observing these settings, it was apparent that the pre-service teachers who were involved, had completed required readings and seemed to understand the context of their development were able to recognize opportunities to learn and reflect. Field notes also indicated that certain 'mature' students, who appeared to have a more broad educational and/or life experience, were better able to focus on the task and also apply a greater depth of inquiry in the course. As noted by Frank, the mature student, the engagement of pre-service teachers in the activities of the program is essential:

> **Frank**: I think there's a certain level of knowledge, understanding, appreciation that the students in the methods course have to bring to the table initially. I think the reflective practice demands, in order for it to be effective, that somebody has to function at a certain level in terms of the material you're dealing with, and the subject you're dealing with.

Participants recognized that in order to be 'successful' in the beginning of one's professional career, focus and commitment were important characteristics to have. Other students portrayed differing behaviours. Some students appeared disinterested in new ideas and approaches. They were prepared to sit through classes without interactions and perhaps had resigned themselves to a custodial approach to teaching PE the way they had experienced it themselves. Frank noticed this:

> **Frank**: There is or there was a portion of the people that were in the methods course that, in my opinion, are not prepared to be teachers. Point blank. They're not thinking of Physical Education at that level. They're thinking, 'okay, give me some lesson plans, give me this, just give me the damn piece of paper and I'll go out and get a job'.

The type of exercise that initiated reflection was a key factor in the participants' interest and support for critical thinking. Participants very much enjoyed practice.

> **Amin**: The key ones were probably the practical opportunities in front of your peers and then, the field experiences. Those, for me, were the key ones that were really at

> the root of where I wanted to be and where I want to go, and gave me an opportunity to try something, experience things.

They also really learned a lot by watching their peers and by the demonstrations of various teaching styles and situations presented by course instructors.

> **Kate**: I think that the most beneficial thing from the methods course was the observation part of it. For me, I learned so much from observing other teachers. And I can take so much of that into my own practice.

Perhaps the greatest range of the focus and level reflection occurred during the field experience. Since pre-service teachers were involved in different school situations with individual mentors, the teacher education program loses a bit of consistency in the amount of reflection which takes place. They felt that getting feedback on their teaching was very important.

> **Mary**: I think I gained the most benefit from were opportunities for critical feedback and appraisal. Again, in the controlled environment, so that you get an experienced eyes' perspective on what it is that you were doing, how it may have been perceived.

Not everyone had the benefit of a situation like Jill, whose mentor was very much a professional guide for her:

> **Jill**: She was an exemplary cooperating teacher. After every single lesson she sat down and said, so what went well, what would you change and talked all the way through. We reflected together and she expected me to reflect on my own. you can learn a lot by talking about your teaching with your cooperating teacher, and maybe watching her or other teachers, I did. I had an experience where we had a lot of communication so that I was getting a lot of feedback about my own teaching. But

> also about her teaching when I was first there, and I was watching some of her classes, we would reflect on her own teaching. And she took a really good approach to it, it wasn't like making me – her the professional, me the person underneath her, I mean, we always had that relationship. But it was also like, okay, well how would you do it? What would you do differently? And not really is that better, is that good, just why. And how could it have a different effect on the students, so her and I were both very aware that teachers teach differently. This was really beneficial for me. ... We sat down for both my mid-point and my final reflection or my final evaluation and we looked through both of them and I was never being judged, I was never being told to do anything, it was just an amazing support I had. And what it made me realize, I've reflected for years and years. I mean, I'll wake up in the middle of the night thinking about classes that I'd taught or thinking about the next class the next day so I'm always thinking about ...
>
> **Kate**: I never saw one lesson plan that he had ever put together or anything to sort of go by. I made my own lesson plan and everything, of course, for my classes and reflected on how I thought things were going to pan out and any improvements I thought I could make.

References were made to specific components of the program as preservice teachers' insights were detailed to identify strategies and aspects of the teaching and learning environment that were reflected upon or that exposed them to the inquiry process.

## Snapshot of program participants

The intent of this section is to provide a perspective on participants in the program. To begin though, I felt it was important to share some contextual observations that, while subjective, indicate my own realization of factors such as they could affect the implementation of reflective strategies in a PETE program. In particular, I feel the need to recognize that some factors are implicitly (and regrettably) ignored when planning courses. And it should be noted that the demographics of PE teachers and the recruitment of PETE students have been assessed under the area of socialization research in PETE (Templin & Schempp, 1989; Placek et al., 1995). This research has a way of providing professional educators with baseline information on program participants.

'Knowing your students' is a familiar task for all teachers and would also be of particular value to course instructors and teaching assistants, especially when these change regularly and for those who may not have a common knowledge of the local population and environment. It was possible to identify that teacher education students at this university represent the diverse cultural mosaic of the nation. In physical education, I observed PETE students from a significant low number of visible minorities. Males represented more than half the students in methods courses at the secondary level. In the primary school stream, the lack of males who enroll in the PE methods course mirrors the very low numbers seen in elementary school programs. The 'typical' student in the PETE program ... was completing the pedagogy phase of teacher preparation. Many seemed to have had considerable experience in sport and were still active as athletes, coaches, and as officials. Some PETE students were still involved at a competitive level of participation on varsity and provincial teams. Generally the cohorts of PETE students observed were in a good state of physical fitness, prepared to be positive role models for their students in the future. Field notes indicated several students had attended various university-transfer college programs. The majority had completed an initial undergraduate degree in physical education at the same university. Without accessing specific information on dates of birth, it would be fair to say the majority of PETE students were aged in their early to mid twenties.

Another instructor's observation was that students shared common personality traits (Lu, 2000). In other words, there was quite a range in students who presented themselves as extroverts ('A' personality traits - outgoing, gregarious, and ambitious) and introverts (self-conscious, reflective, and private). This is noted since communication within the cohort was necessary given the classroom activities and assignments to be completed in groups and presented with peers.

A majority of students arrived from urban areas. Several students enrolled in the PETE program courses have had an extensive background in sport, recreation or dance. Many were currently participants on university or club teams in their given activity. Some had coaching experience as well. The class sections were balanced in terms of gender. The class participants appeared to have a blend of cultural backgrounds comparable to the general university population. Field notes from classroom discussions indicate that several students had a previous undergraduate degree; some had attended classes together for some time over the past few years, during their degree program in physical education.

## Section V – Teacher educators' perceptions of reflection

This fifth and final section reporting on findings focuses on the perceptions of teacher educators involved in the PETE program, and will include identified themes, concerns and opinions related to the implementation of reflective practice in all aspects of the program.

Three male teacher educators were involved in the study; each had recent experience teaching PETE courses (with at least two sections during the past two years). I had the opportunity to meet and observe each of them during their delivery of course activities. While their backgrounds in physical education were diverse, their general approach to teaching the course content was similar. In fact, two of the three instructors had shared resource information and outlines. Any slight differences in the course sections may have been observed in the teaching styles presented and the reflective strategies used.

The first topic of interest was their focus on reflection in teacher preparation. Michael believed that his own professional development and awareness of critical thinking has evolved...

> The last four or five years I've really started questioning a lot more about what it is we should be doing as Phys. Ed. teachers, and as teacher-educators what really is the most important thing is to have our future teachers think about when they start their careers. I say that because, in my early years as an under-graduate, the tough questions were never asked of me and it was through my own experiences as a new teachers where I really learned a lot of the, I think, valuable lessons that we all need to, at some point, learn as teachers. So that I can make my pre-service teachers think earlier in their careers about the bigger issues in education.

This quote outlines as well an interest to use reflective teaching strategies for multiple purposes, including perspectives that involved specific pedagogical elements (micro) and critical thought about the nature of teaching (macro).

The knowledge base needed to be a competent physical educator was discussed. Though a general consensus included both content knowledge and knowledge of teaching, the importance of a professional identity was also raised. Bill noted that participants in teacher education programs will often not realize the impact of their chosen professional career. This is something that becomes readily apparent in methods course dialogue:

> **Bill:** I think there's a huge aspect of naiveté that they bring to why they want to be a teacher. Answers that they give when asked, 'Why do you want to be a teacher? Why do you want to be a Phys. Ed. Teacher?' are very similar amongst all of them...
> I think they come with a genuine interest in wanting to be Phys. Ed. teachers. I think they've had successes themselves in athletics, as athletes, as students who had success in physical education themselves, probably from an early age right through until graduation. They're probably people who still live an active lifestyle, participate in athletics, and think that because of these factors, they themselves will automatically become good Phys. Ed. teachers. And to be a good Phys. Ed. teacher takes a lot more than just having the psychomotor skills. I think one of the things that I've learned too is they tend to think that they know a lot more than they really do - though they are unwilling and unable to admit that – especially when they graduate in their fourth year. And it's not until they become teachers in the field and you talk with them after they've been in the schools, they realize that maybe they didn't know all that they should have.

Teacher educators recognize that the process of learning to teach though is complex. Some teacher educators (Graham et al., 1993; Hutchinson & Buschner, 1996) recognized that the mature students with greater life experience tend to be quite open to reflection compared to their younger peers. Consider the following comments by James and Bill:

> **James**: ... students who bring to the class a broader range of life experiences tend to be the ones who do better in terms of contributing to questions when asked about anything.
>
> **Bill**: In my own experience in dealing with older under-graduate students, I've found them to be the more reflective students and the deeper thinkers about issues in teaching and I base that, I think, on the more lived experiences that they possess.

In regards to reflection, Michael advanced the idea that teacher educators need to encourage participants to 'think deeper about what it is they're learning'. James added:

> **James**: The word reflect, however, is a dirty word for our student-teachers, even though they realize that that is the emphasis in this faculty – one faculty of education that is recognized world-wide for the people that work here. The student teachers don't like reflection.

An observation that I've seen is that teacher-educators are using reflective practice and assignments in ways that are not as meaningful to the students themselves as they could be. Bill noted support to this claim:

> **Bill**: Some instructors use reflective practice with their students as a means of evaluation, for example. If this is done early in a student's post-secondary experience, it can leave a bad taste in their mouth for whenever any other reflective practice is offered to them. We are all individuals when we teach pre-service teachers

> and we all have our own definition of what reflection means and the value of the term, and yet we, in a lot of cases, paint all the students with the same brush and expect that they will give us all the same kinds of answers and that they believe in it the same ways we do, which is unfair. I think of students who are in their third year and fourth year and are forced to do reflective journals, as an example, for the sixth or seventh or eighth time and have had negative experiences because they've been evaluated on them, they've been critiqued on them negatively, or forced to share, maybe, personal feelings and personal growth where they didn't want to, I think that enhances the negativity that happens later on in their under-graduate careers.

Educators feel that there needs to be greater consistency between what is taught in curriculum and instruction courses on campus and what pre-service teachers learn from their mentors during the field experience. **James** said:

> **James**: I think that there could be a better job done with helping all cooperating teachers at this institution - outlining for them their responsibilities with our students. In the area of Phys. Ed., specifically, I think there needs to be a better overview of what the expectations are of cooperating teachers. If that's not done, the students who we have contact with, and basically give up to the cooperating teachers, are very heavily influenced by what they see in the field. So I think there needs to be a much greater emphasis put on who our students are paired with. A much more diligent manner of how we pair up people to ensure that we as teacher-educators, the cooperating teacher and the student themselves, the most important part here, are all on the same page and that we're all working together.

Michael believed this is somewhat related to the structure of the program – including the number of methods courses required, activity courses take, the location (Clarke and Hubball, 2001; Hardy, 1999; Sharpe, 1992), and the duration of the field experience:

> **Michael**: I think our job becomes much more difficult because we're in a situation where we have a one-shot opportunity to try and instill in them a way of thinking and a way of teaching students that they may have not heard of before and, frankly, it's in contrary belief to what they've been taught themselves.
>
> **Bill**: Because of the current structure and make-up of our program, I think the macro level thinking that we would hope to do have them be in, does not transpire. You can only do so much in a little bit of time we have.

Educators want to ensure that pre-service teachers are given the time to learn pedagogic skills such as planning:

> **Michael**: I think it's valuable for the student to go through the process of working with the curriculum and providing to me evidence that they have worked through the process of short-term, long-term planning. Daily planning is a necessity of the job and I, personally, want to see evidence that the students who I am working with over the course of a term, can plan for the benefit of their future students.

Learning about research issues in physical education is not necessarily given the time needed; Bill forwarded these thoughts:

> **Bill**: Gaining some sort of a knowledge base of the literature within our subject area, I think is really important; and as far as an assignment goes, having the students consciously and purposely look through literature pertaining to Physical Education,

> in terms of a literature review or annotated bibliography, I find to be beneficial and helpful.

Other topics included in discussions were collegial. This made me wonder how regularly teacher educators both in PETE and in any subject areas get an opportunity to network. In physical education, I am aware that the community of teacher educators share their research and program ideas on a provincial and national level.

One final theme that was well summarized was that teacher educators continue to wish to see professional possibility in their pre-service teachers:

> **Michael**: I want to have at least provided them an opportunity to know where they can go for resources, when they themselves are professionals in the field teaching Phys. Ed. Lastly, I think showing me how pre-service teachers themselves can teach by putting together some plan and being on the floor and demonstrating their skills and abilities as an educator-teacher of Phys. Ed. is a component that I will always, I think, want as part of my courses. So, when the spotlight is on them, these students show a reasonable competency in running a lesson.

*Reflection 18:*

> *I was made aware by the program coordinator that there are some challenges for the PETE program to 'staff' teaching instructors. While there has been continuity in some respect at this university (two instructors have taught for many years), there is the regular turnover of sessional instructors (seconded teachers and/or graduate students) as well. The background of instructors and their experience (or lack of) with the local implementation of the Alberta curriculum is the most significant factor.*

*What we want to make sure that our students understand is, they're in a society, they're part of a school environment, they're dealing with many issues with a whole classroom of students and their parents, and that as much as we can, whether it be in our methods courses, whether it be it's in the field experience, that we try to give them those lived experiences.*

# Chapter Four: Discussion

An important cross-referencing of data demonstrated that when it comes to teacher education programs, one must recognize that there is much more to a program's structure than the assessments given, the number of credits, the textbooks used and the course syllabi. The quality of a professor in PETE may not be determined by the number of publications or by grant revenues (Goc Karp et al., 1996). The quality of a program may not be measured solely by the graduate placement rate or by academic achievement. The participants' engagement is the true signature piece based on a simple concept – 'the more you put into it, the more you'll get out of it'. This has many implications for the successful implementation of reflective practice and inquiry-oriented teacher preparation.

In a very true sense, the research itself is an exercise in reflective practice. I know firsthand that the process was very enlightening because it challenged me to reflect on all aspects of PETE and to take into account not only different viewpoints but also to accept that the development of a reflective practitioner may be described as a journey that is complex and relative - very personal and subjective. It is difficult to identify a destination on this professional voyage and it is not a trip to be completed alone. In fact, the leadership and mentorship of teacher educators, cooperating teachers and administrators is essential. Also, a variety of strategies are described that depend on relationships that are developed in peer groups and professional learning communities are recognized as essential opportunities to enhance a teacher's self-assessment and reflection on practice.

Reflection practice in PETE has promise. In this case study, data collection methods chosen provided the evidence for reflective teaching strategies being promoted in the curriculum and instruction methods courses as well as during the field experience. What the research would further suggest is that an awareness of the multiple uses of critical thinking and reflection would benefit both teacher educators and pre-service teachers involved in the program. The theoretical components, the practical and political uses for reflection are identified in research and appear to have the support of the faculty of education. Logistical questions related to the PETE program structure and delivery must always be negotiable in order to provide participants the learning experiences that will provide future teachers with a holistic perspective on reflective practice.

Another important avenue to consider is how the specific strategies used to promote reflection can be made available. Student choice is also important in learning and there could be flexibility given to pre-service teachers in terms of the variety of tools they could access to achieve the outcomes and competencies of the PETE program. Then, they may become professionals who are:

- critical thinkers, promoting multiple learning opportunities meeting the needs of learners
- more conscious of teacher decision making, and assessing their actions
- aware of their personal identity,
- able to take responsibility for their professional growth and development

These examples of teacher education outcomes recognize the context for reflection from a focus on professionalism -- and the climate of teaching for learning -- as well as the use of reflective strategies to improve the practice of teachers.

## Implications

The research was inspired to find out more about how teacher education prepares teachers to be mindful. The project was initiated to determine the scope of reflective practice (methods) used by participants within one stream of a teacher preparation program. Participants, including the researcher in the study, found the opportunity to reflect to be valuable. In determining the unit of analysis, the research considered the PETE program as a "bounded context" (Miles & Huberman, 1994) and an "integrated system" (Stake, 1995). The study is really not meant to serve as a program assessment but rather as an inquiry into the use of reflection within the context of physical education teacher education (PETE). Nevertheless, the assessment of reflective strategies used is an extension of the purpose for the study. To move this query further would be to develop a way to measure 'reflexivity' or 'critical thinking' and then to identify what strategies are most effective to enhancing reflection in PETE – as a starting point for a commitment to professional growth.

In regard to the generalizability of results, the emergent/resulting themes discussed may be common to other PETE programs yet are unique to the case studied. Educators and institutions committed to supporting reflective practice (as model and in practice) may help to establish a framework for reflective practice in physical education. Continued study and advocacy of this concept can complement a systemic analysis of the preparation and ongoing professional development of physical educators. The work does support inquiry-oriented teacher education and the expanse of descriptive and interpretive research in physical education.

Information gathering promoted knowledge and understanding of reflection in teacher education at four levels:

(1) the institution (institutional philosophy, including the expectations and competencies of teacher educators);

(2) the teacher education program (strategies for reflective practice by PE students and professionals);

(3) the preservice teacher (effect of reflective practice, critical thinking on perceived competence and construction of identity), and

(4) the physical education environment (application of reflective practice within instructional models and strategies).

By recognizing the practical applications of reflective practice in physical education, research findings have considerable value to teacher education. As well, new knowledge and a more in-depth understanding in this area may be significant to all physical education professionals, including specialists, consultants and related professional organizations. Insights from this study will extend to issues of professional development, and reflection as a component of assessment. In drawing conclusions, any implications and recommendations will be forwarded appropriately. Results could be reported in professional and academic publications and presented at conference proceedings. Insights may be gained as to the lived world of novice physical education teachers as to how their professional identity is being shaped and developed as a result of reflective practice that is being incorporated in the teacher education program.

# EPILOGUE

The purpose of the research was to better understand the model of the 'reflective practitioner' in the context of participants in a PETE program. I can confidently admit that the variety of methods used - including observation, document analysis, interview dialogues, and reviewing related research – provided me with the evidence I sought. Multiple examples of reflective strategies were presented by instructors and/or applied by pre-service teachers.

As I discovered in my research, reflection can mean something different for each individual. In completing this final reflection, I have one clear objective: to attempt to summarize clearly comments and ideas that I have observed with respect to the different dimensions of reflective practice. I was able to do so by reviewing reflective practice in a few ways:

1) by identifying the purpose of reflections for pre-service teachers;

2) by outlining how reflective models of teacher education are promoted and implemented – particularly in physical education;

3) by noting the application and extension of inquiry-based methods occurs in a 'learning to teach' context that has significant impact on the depth and focus of reflection.

4) by expanding on the worth of reflective practice as a method for teachers to define themselves and to develop a professional identity.

The purpose of reflection in teacher education has diversified since it was initially introduced. While the concept of reflection encourages self-assessment and review, those who engage in this process can use it in many different ways. I noted that the selected purpose of reflective practice may change and needs to be clearly identified in order to carefully select the appropriate strategy. This is very significant in a teacher education program if a novice teacher is taught how a learning tool can be used for teaching *and* for learning. This idea is the foundation for the concept of lifelong learning, and supports a constructivist approach to classroom education. Therefore, I underline that the first purpose of reflection is to encourage 'awareness'. Instructors and students who become aware of the factors influencing their development (and that of learners) are perhaps better able to make sense of the knowledge that is introduced in curriculum and instruction courses.

Another use for reflection that seems to be often promoted in teacher education is to create in pre-service teachers an interest in 'assessment'. I would think the focus tends to be on teacher assessment rather than that of the learner, since some comments I heard lead me to believe that some novice teachers never seem to have enough background practice and experience in using a variety of assessment strategies. I suppose what I would then encourage is for pre-service teachers to be exposed to these options in order for them to realize that a reflective approach is needed for making assessment of learning. Reflective strategies that permit teachers to assess their performance lead them towards a technical perspective – and towards the idea of best or effective practice. While it can be an admirable and purposeful objective, I would also say it has the potential to guide teachers to a particular approach to teaching that is perhaps too focused on skill and on the delivery of content. I have myself learned throughout my career that in my early years, I too focused more on my delivery or the material and less on the specific skills learned by students or on making my teaching environment conducive to learning about learning. The context for reflection is that it can help teaching and learning for the needs of all students. What is needed then are the reflective strategies that facilitate the understanding of content knowledge and a personal application of presented material. These strategies can be quite diverse and innovative.

Reflection in PETE can also serve to initiate 'action'. It puts an onus on the individual teaching to complete regular performance reviews as part of a professional action. If achievement is not happening, or if undesired results or outcomes occur, then teachers need to determine the necessary corrective action or modification in order to solve the problem. Reflection may be most used by novice teachers to identify an issue or for problem setting; it does not solve the problem! This realization has led me to wonder whether reflective models in teacher education are more closely related to the phases of action research (a model recently investigated by PETE colleagues: T. Hopper, C. Hickson). I have only a limited background in this approach but notice that it does draw on similar phases of personal and professional reflection in order to improve practice. Reflection is a key component to action research.

The promotion of reflective teaching techniques was identified throughout the research. The strategies are options for teacher educators and mentors to address during methods courses and field experiences. It is important for these leaders to take the time to explain how each strategy may be helpful in different ways. It will also support greater continuity between the learning experiences in teacher education that occur in different environments.

Reflection is part of the set of competencies that teacher organizations promote. The implementation of reflection though can only be successful with the recognition that it will enhance practice, develop professionals' identity, and motivate growth and lifelong learning.

I wish to comment on the way I have taken the concept of the 'reflective practitioner' by looking back at the wordplay on the elements of the concept that refer to its' purpose. I read about, observed and discussed reflection in action, for action, on action & about action. These expressions outline the various ways individuals can modify their use of reflective methods. They also help me make sense of the practical implementation of a theoretical concept.

For me to be able to summarize the research I conducted is at times difficult depending on my audience. Using a reflective strategy is the simplest way for me to describe my own development related to reflection. I do so by connecting themes to my activity. I can confess to the impact of inquiry and the act of reflection with these four affirmations: I see; I wonder; I think; I do. If I can encourage reflection to those who still are suspicious of its uses – it can be whatever you want it to be. It can happen before, during and after practice. It may keep you awake at night or distract you. For myself, it provided the opportunity to complete a self-assessment and engagement in my professional identity.

Finally, reflective practice is a model for professional growth that must always be contextualized. The focus of reflection must regularly shift from teacher to content to learner. Whether a professional accepts a political, technical, or social orientation, reflective practice is a valuable model for teacher professionals at any point in their career.

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# APPENDICES

## APPENDIX A

*NASPE / NCATE basic standards for physical education teachers*

(NASPE / NCATE, 1998, pp. 5-11)

1. Physical education content, disciplinary concepts, and tools of inquiry related to the development of physically educated person;
2. How individuals learn and develop and can provide opportunities that support physical, cognitive, social, and emotional development;
3. How individuals differ in their approaches to learning and create appropriate instruction adapted to these differences;
4. Uses and understanding of individual and group motivation and behavior to create a safe learning environment that encourages positive social interaction, active engagement in learning, and self-motivation;
5. Uses knowledge of effective verbal, nonverbal, and media communication techniques to foster inquiry, collaboration, and engagement in physical activity settings;
6. Plans and implements a variety of developmentally appropriate instructional strategies to develop physically educated individuals;
7. Understands and uses formal and informal assessment strategies to foster physical, cognitive, social and emotional development of learners in physical activity;
8. **Is a reflective practitioner who evaluates the effects of his/her actions on others (e.g. learners, parents/ guardians, and professionals in the learning community) and seeks opportunities to grow professionally;**
9. Fosters relationships with colleagues, parents/guardians, and community agencies to support learners' growth and well-being.

## APPENDIX B
Research information form and consent

To Whom It May Concern:

In physical education teacher education (PETE), inquiry-oriented research has a focus on the subject (physical education). Many investigations and discussions have focused on issues of the what (content) and the how (delivery) of a PETE programme. Recently, there is greater interest in understanding the other "subject(s)": the persons involved in teaching and learning how to teach PE. Therefore, new projects focus on the individual: their story and the way they are mindful. The purpose of critical reflection is to instill in developing (and experienced) teacher professionals the habit of consideration and assessment. Various exercises that may help shape one's identity (such as narrative analysis, life history approach and situating the self) are experienced in teacher education. By studying these is possible to better understand the ecology of physical education: the people who make the profession.

With this in mind, I hope you consider participating in this project undertaken in partial fulfillment of my M.Ed-thesis programme. The purpose of this research is to further understand reflection in PETE in the following dimensions:

a) the background of participant pre-service teachers and teacher educators;
b) the reflective strategies used in the PETE programme at the University of Alberta;
c) the perceptions of participants towards reflection and reflective strategies
d) the concept of the reflective practitioner in PETE - as an orientation for teaching and as a professional development model.

The objective is to determine the extent reflective methods are used by participants (teacher educators and pre-service teachers) within one preparation programme of physical education teachers. It is not meant to serve as a programme assessment but rather as an inquiry into reflective practice within the context of physical education. Participants in the study may find an opportunity to reflect on their own background and beliefs worthwhile, having recently engaged in teacher development. The findings of the study are meant to complement a systemic analysis of PETE: the preparation and on-going professional development of physical educators.

Involvement in this project would entail your participation in a focus group discussion and /or 1-2 individual, semi-structured interview(s). The audio-taped group discussion and individual interviews should last no more than one (1) hour each and may take place on the university campus or an alternative, convenient location. If necessary, a second interview will be used to verify transcript statements and to further probe the themes of the initial discussion. While consideration is given to topics derived from the focus group meeting, the interview will focus on your background experience with reflection as a teaching tool, as well as your perception of different related strategies and elements of the physical education teacher education programme at the University of Alberta.

Participation in this review study is free and voluntary, and you may withdraw from the research study at any time without penalty and prejudice. All the data collected during the study will be secured and will remain confidential and you will not be identified by name in any document resulting from the research. The research will be conducted as approved by the University of Alberta's Research Ethics Board, and in a manner that is respectful of you as a participant. There are no known risks associated with participation.

Should you have any questions, or need further clarification, contact myself or Dr. Nancy Melnychuk, Associate Professor (Coordinator of the Secondary Physical Education programme) with the Faculty of Education at (780) 492-0543. It is important to understand that this study has been reviewed and approved by the Research Ethics Board of the Faculties of Education and Extension at the University of Alberta. For any questions regarding participant rights and/or the ethical conduct of this research, please contact the Chair of the Research Ethics Board at 780 492-3751.

I hope that you will agree to participate in this project. With your assistance, an understanding of participants' background and experiences with reflective strategies used within this program can be gained. The information gained from this research will be disseminated to professionals in the field of physical education and teacher education through presentations and articles. It is hoped that, with such information, reflective practices and a reflective practitioner model may be considered by teacher preparation programmes and by in-service teacher professionals.

Thank you for considering this request.

Yours truly,

Wayne Meadows Jr
Department of Secondary Education
(403)301.0815 Ext 2229 office
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wayne_meadows@shaw.ca or wmeadows@ualberta.ca

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I agree/do not agree to participate in the above outlined research study.
(Circle choice)
I understand that I may withdraw at any time during the study without penalty or prejudice.

________________ Date______________________

## APPENDIX C

## PROCEDURES FOR COMPLIANCE WITH THE U OF A STANDARDS

Human research conducted under the auspices of the University of Alberta must follow the Standards reflected in the GFC Policy Manual Section 66 entitled "Human Research - University of Alberta Standards for the Protection of Human Research Participants." This document is available on the University web site at
http://www.ualberta.ca/~unisecr/policy/sec66.html

Please attach the following:

- Information letter(s) to participant(s) (e.g. teachers, students, parents/guardians)
- Consent form(s) for participant(s) (e.g. teachers, students, parent/guardians)
- In the case of solicitation of participants through advertisement, a copy of the advertisement(s)
- A copy of any data gathering instruments. In the case of published instruments, only the name need be given. In the case of interviews, sample interview questions must be included.
- A copy of the *Research Assistant/Transcriber Confidentiality Agreement* (if required)
- Any additional documentation

Please describe clearly and concisely how you intend to comply with the Standards by answering each of the following questions.

1. How will you explain the purpose and nature of your research to prospective participants?
**All participants in this research project will be provided with a clear description of the project prior to the commencement of the research. An information letter detailing the purpose and intent of the research, and use of the research data will be provided. The letter will also outline the nature of the study and the extent of the participant's involvement.**

2. (a) What steps will you take to obtain the free and informed consent of the participants?
**Participants will be required to sign a letter to indicate consent for participation. All prospective participants will be informed that they may choose not to participate or withdraw without penalty at any stage of the study. This will be explained to the participants in the information/consent letters.**

   (b) Are there limited and/or temporary exceptions to the general requirements for full disclosure of information? If yes, (i) please describe the exception(s) (ii) justify the need for the exception(s), and (iii) explain the provisions for debriefing participants.
   **No.**

   (c) Are there any circumstances which could compromise the voluntary consent of participants (e.g., incentives, captive populations, second relationship)? If yes, how will these circumstances be dealt with? **No.**

3. How will you provide opportunities for your participants to exercise the right to opt out without penalty, harm or loss of promised benefit?

**The information and consent letter, provided to all participants, will outline that withdrawal is allowed at any point during the research project.**

4. How will you address anonymity and confidentiality issues?
**To address anonymity and confidentiality issues, participants will not be asked to identify themselves on any data collection instruments. Pseudonyms will be used in transcription and description of data. In order to provide security for the data collected, all completed material will be collected and tabulated by the researchers. When not being reviewed, such items will be kept in a secure and confidential manner at the University of Alberta. After the data has been analyzed and the report written, all material collected will be kept in a lockable cabinet. Permission to use the data collected will be outlined in the information/consent letters.**

5. Will there be any risk, threat or harm to the participants or to others? If yes, (a) please elaborate and (b) how will you minimize the risk, threat or harm?
**There is no harm anticipated with participation in this research.**

6. How will you provide for security of the data during the study and for a minimum of 5 years thereafter?
**All data will be kept in a locked and secure cabinet for a period of 5 years. After that time, the data will be destroyed.**

   1. If you involve research assistants and/or transcribers in your research, how will you ensure that they comply with the Standards?
   **Any research assistant will be required to sign a confidentiality agreement (see attached) and will undergo a training period where methodology, confidentiality and security will be presented and expectations of assistant conduct outlined.**

   2. Please describe any other procedures relevant to complying with the Standards.
   **None.**

# APPENDIX D

*Sample Themes and Questions to be used during Focus Group and Individual Interviews*

- Methods used incorporate reflective practice strategies throughout.

- Focus Group Interviewing: As an underutilized evaluative technique in physical education (Rikard, 1992).

## Themes

During individual semi-structured interview, the following themes (amongst others) may also be addressed.

a) Background impressions of project – clarification if required.
b) Description of teacher education programme
c) Experience with reflection throughout teacher education programme
d) Experience with reflection in PE / during APT / during Field Experience / post FX
e) Identification and assessment of reflective strategies used
f) Examination of alternative reflective strategies
g) Contribution – what impacted you in being involved in this project?

The following is a sample of themes and questions that may arise in the discussions.

1) **Identity** – Awareness of self: as teacher / in PE / as coach / other

Who are you? How do you define yourself in the context of physical education and teaching? How do others see you? Do you feel comfortable with this identity?

2) **Transitions** – between roles: student to teacher / teacher and coach / teacher to mentor

- Have you and your views changed with your different positions or roles? Why or why not? How do you handle different roles? Do you have different identities / personalities then?
- How do you think or act differently in these positions? Do you have basic ideas or beliefs you have at all times?

3) **Socialization** – effect of PE experience as student / effect of peers / effect of environment

- What is your background in PE? What do you think explains your choice of career?
- Are you affected by the people you worked with? How?

- Do you feel you have can impact others – students, peers?

4) **Ecology / environment** – in teacher education / in education (school) / in PE community

- Describe your perspective on teaching environment; on physical education.
- What do you feel are issues within teacher education, schools and PE that relate to the environment for learners and teachers?
- Do you have suggestions or ideas on what could be done in this area?
- What can be done to help new PE teachers early in their career?
- What are other factors that might influence PE teachers in general?

5) **Reflection** / reflective strategies and perceptions / Thinking about ...

- What do you think about in regards to the PETE programme?
- How are you able to process what you do in the PETE programme? Are you able to look at your work and make an assessment?
- Give me an example of an event where you think about what occurred. Take another look at same event from another point of view.
- How do you feel about reflection? Do you find it helpful for a teacher to reflect?
- What are factors that may limit one's ability to reflect?
- Do teachers have any reason to reflect? Why or why not?
- How do you think reflection affects teaching? Learning?
- What types of reflection or feedback techniques do you recall being used in the teacher preparation programme? Have you ever experienced the following strategies?
  **a) narrative analysis:** reading comprehension and reviews of articles(text), journal writing, storytelling, poetry, metaphors, ...
  **b) observation:** teacher observation, video analysis (self or others), peer presentations or assessment,...
  **c) conversation:** cooperative learning, focus group discussion, debates, think-pair-share, participate in interviews, email correspondence, listserv discussions, ...

- Regarding the strategy ______, how do you think it worked for you?

- Which strategies do you feel are more appropriate for students in the PETE programme? Why? Are there strategies you might suggest that we may not have discussed?
- What exercises do you feel are least useful for PE teachers? Why?
- Metaphors are very popular ways of reflection and to make sense or explain. Share with me a metaphor for each of the following:
  a) Becoming a teacher
  b) Life in the gym
  c) Various roles you have
  d) Reflection for me is...
  e) Identity: I see a...
  f) Physical education

6) **Anxiety, Struggle and Resistance** - to components of program / to content / to change / to learning / to reflection (and reflective strategies) / to content knowledge / to pedagogical strategies /

- What related issues or problems have you struggled with during the PETE programme?
- Describe one example of a situation where you felt anxious or frustrated. How did you reflect about the issue at the time? Do you see it in a different way now?
- Have you felt a struggle or resistance to reflection? Why? Do certain strategies affect you more than others?
- How you think reflection can be used in PE – for teachers and for students?
- Would you reflection relates to the PE curriculum? How?
- Do you see any resistance by others to the new PE curriculum? Provide an example.

7) **Acceptance, Growth, Satisfaction** – with development / with programme / with self

- How have you developed as a person / teacher during the PETE programme?
- Do you feel satisfied with your involvement in the programme?
- Is reflection something you accept as part of your role? Do you feel you'll continue reflecting throughout your teaching career?

**Contribution & Collaboration** – context of shared learning / cooperation

- Do you feel that the PETE programme has had an effect on your perceptions of teaching PE?
- Describe how being a part of this project has made you feel?
- Do you think you have opportunities to contribute to the PETE programme? How?
- Explain how teachers and students can share in the learning process. Do you think reflection is an activity teachers and students can work on together?

# APPENDIX E

*Summary of Knowledge, Skills and Attributes for Interim Certification Alberta Teacher Association: Teacher Qualification Standards*

**As situations warrant, teachers who hold an Interim Professional Certificate are expected to demonstrate consistently that they understand:**

a) contextual variables affect teaching and learning. They know how to analyze many variables at one time, and how to respond by making reasoned decisions about their teaching practice and students' learning;

b) the structure of the Alberta education system. They know the different roles in the system, and how responsibilities and accountabilities are determined, communicated and enforced, including the expectations held of them under the Certification of Teachers Regulation, A.R. 261/90 as amended and their school authority's teacher's evaluation policy;

c) the purposes of the Guide to Education and programs of study germane to the specialization or subject disciplines they are prepared to teach. They know how to use these documents to inform and direct their planning, instruction and assessment of student progress;

d) the subject disciplines they teach. They have completed a structured program of studies through which they acquired the knowledge, concepts, methodologies and assumptions in one or more areas of specialization or subject disciplines taught in Alberta schools;

e) all students can learn, albeit at different rates and in different ways. They know how (including when and how to engage others) to identify students' different learning styles and ways students learn. They understand the need to respond to differences by creating multiple paths to learning for individuals and groups of students, including students with special learning needs;

f) the purposes of short, medium and long term range planning. They know how to translate curriculum and desired outcomes into reasoned, meaningful and incrementally progressive learning opportunities for students. They also understand the need to vary their plans to accommodate individuals and groups of students;

g) students' needs for physical, social, cultural and psychological security. They know how to engage students in creating effective classroom routines. They know how and when to apply a variety of management strategies that are in keeping with the situation, and that provide for minimal disruptions to students' learning;

h) the importance of respecting students' human dignity. They know how to establish, with different students, professional relationships that are characterized by mutual respect, trust and harmony;
i) there are many approaches to teaching and learning. They know a broad range of instructional strategies appropriate to their area of specialization and the subject discipline they teach, and know which strategies are appropriate to help different students achieve different outcomes;

j) the functions of traditional and electronic teaching/learning technologies. They know how to use and how to engage students in using these technologies to present and deliver content, communicate effectively with others, find and secure information, research, word process, manage information, and keep records;

k) the purposes of student assessment. They know how to assess the range of learning objectives by selecting and developing a variety of classroom and large scale assessment techniques and instruments. They know how to analyse the results of classroom and large scale assessment instruments including provincial assessment instruments, and how to use the results for the ultimate benefit of students;

l) the importance of engaging parents, purposefully and meaningfully, in all aspects of teaching and learning. They know how to develop and implement strategies that create and enhance partnerships among teachers, parents and students;

m) student learning is enhanced through the use of home and community resources. They know how to identify resources relevant to teaching and learning objectives, and how to incorporate these resources into their teaching and students' learning;

n) the importance of contributing, independently and collegially, to the quality of their school. They know the strategies whereby they can, independently and collegially, enhance and maintain the quality of their schools to the benefit of students, parents, community and colleagues;

o) the importance of career-long learning. They know how to assess their own teaching and how to work with others responsible for supervising and evaluating teachers. They know how to use the findings of assessments, supervision and evaluations to select, develop and implement their own professional development activities;

p) the importance of guiding their actions with a personal, overall vision of the purpose of teaching. They are able to communicate their vision, including how it has changed as a result of new knowledge, understanding and experience.

## Appendix F:

*Recommended text resources listed in recent PETE course outlines.*

- Anderson, W. (1980). Analysis of teaching physical education. Toronto: The C.V. Mosby Company.
- Arends, R. (1994). (3rd Ed). Learning to teach. Toronto: McGraw-Hill
- Borys, A. (1994). Increasing activity time in physical education classes: Questions concerning class organization and management in physical education classes. Edmonton, AB: University of Alberta.
- Clement, A. & Hartman, B. (1994). The teaching of physical skills. Madison, Wisconsin: Brown and Benchmark.
- Harrison, J., Blakemore, C., Buck, M., & Pellett, T. (1996). Instructional strategies for secondary school physical education. Madison, Wisconsin: Brown and Benchmark.
- Hellison, D. & Templin, T. (1991). A Reflective Approach to Teaching Physical Education. Champaign, Illinois: Human Kinetics.
- Kirchner, G. & Fishburne, G.J. (2001). Physical Education for Elementary School Children (Tenth Edition). WCB / McGraw-Hill Publishers.
- Mosston, M. & Ashworth, S. (1994). Teaching physical education. Columbus, Ohio: Merrill.
- Pangrazi, R. & Darst, P. (1997). Dynamic physical education for secondary school students. Boston, Ma: Allyn and Bacon.
- Randall, L.E. (1992). Systematic supervision for physical education. Champaign, Illinois: Human Kinetics.
- Rink, J. (1992). Teaching physical education for learning. St Louis, Missouri: Times Mirror / Mosby College.
- Siedentop, D. (1991). Developing teaching skills in physical education. Palo Alto, California: Mayfield.
- Thorpe, R., Bunker, D., & Almond, L. (Ed.). (1986). Rethinking games teaching. Loughborough: University of Technology, Loughborough.
- Tinning, R. (1987). Improving teaching in physical education. Victoria, Australia: Deakin University Press.

- Vickers, Joan N. (1990). Instructional design for teaching physical activities. Champaign, Illinois: Human Kinetics